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Preface

As a continuation of its series of papers on "Issues and Alternatives", the Ontario Economic Council this year is issuing two papers. One concentrates on the subject of private business investment, the other on the regulatory activities of governments. In addition, we are publishing an update of the economic projections of the Ontario economy to 1987, first published last year and prepared by three economists at the Institute of Policy Analysis at the University of Toronto.

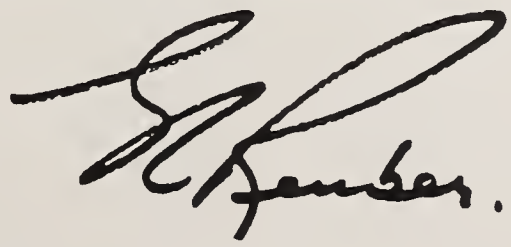
The purpose of these papers, as of those published earlier in this series, is to highlight major issues as we see them, to stimulate informed public debate on these issues and to provide a framework for discussion about possible improvements in government policies.

This paper is concerned with the large and complex web of government rules and regulations that has developed over the years. This web shows every sign of growing even greater and more intricate. Not only does it increasingly impinge upon the freedom of the individual but also it significantly impedes economic activity and exacts substantial economic costs. What can be done to keep government rules and regulations up to date, to ensure that the benefits derived by the public are commensurate with the costs, and to improve the design and administration of government regulations?

This report consists of three parts. The first presents a general introductory statement by the Council on this subject. The second part consists of four papers on particular aspects prepared by individuals knowledgeable in these areas. The third part, an appendix, provides a catalogue, which we believe is reasonably complete, of regulations within the jurisdiction of the Government of Ontario. Although the second and third parts of this report were commissioned by the Council and we believe warrant publication, it should be clearly recognized that these parts reflect the views of the individual authors of these papers and not necessarily those of the Ontario Economic Council.

It is the Council's hope that this report will help to illuminate this important subject and assist in developing policies to cope with this complicated and difficult issue.

While each member of the Ontario Economic Council does not necessarily subscribe to everything contained in the general introductory statement to the report, the statement does reflect a consensus of the members.



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Summary and Recommendations

The growth in the size and complexity of government over the past several decades has spawned an ever increasing literature concerned primarily with tax and expenditure issues. But in recent years increasing attention has been directed toward governmental regulatory activities. Governments, in addition to administering a vast network of regulations through traditional departments, also delegate general regulatory powers to a host of independent or quasi-independent agencies that they create for the purpose. These may be designated as boards, commissions, councils or have other titles. Whatever the nomenclature, the numerous regulatory agencies can and do impose a multitude of rules and regulations that have, in aggregate, a great influence on many activities, both economic and non-economic, throughout the country.

Probably because it is so difficult to quantify the full economic and political costs and benefits involved, the public seems largely unaware of and uninformed about the many important questions at issue in the area of government regulation. Most of the literature dealing with the subject has been highly theoretical and the applied analysis has been confined, to a great extent, to regulation in the United States. Another barrier to public discussion of government regulation is a lack of relevant information about the subject.

As a step towards creating greater awareness of and information about this subject, the Ontario Economic Council decided to publish the present volume. The greater part consists of four studies commissioned by the Council. These reflect the views of the authors and not necessarily those of the Council. They are presented here as a contribution to an on-going discussion of regulation. The balance of this introduction is intended to place these papers in perspective and in the final section to outline a policy

approach for coping with regulation that the Council believes warrants consideration.

The rationale for the imposition of regulatory constraints is spelled out in detail in the paper below by Trebilcock *et al.* In general, the overriding principle is that the public interest takes precedence over private interests. One of the problems has been a lack of consensus about what constitutes "the public interest".

Regulations are put in place for a number of reasons: for example, some of them are intended to alter the distribution of income, to improve the efficiency of markets, to improve knowledge and market information. What is often forgotten is that regulatory activities, particularly when they involve granting licences or allocating quotas, create claims on resources (property rights). Those who possess these rights, once they are created, strongly resist any attempt to reduce the value of the rights they hold because of regulatory measures. To what extent is the creation of these property rights in "the public interest"?

"Costs" are also created by regulation. Such costs are both direct and indirect. One important indirect cost (that is almost impossible to value in dollars terms) is the limitation of freedom of choice, be it corporate or private. There are also large negotiating-information costs (usually termed transactions costs) arising from the uncertainty of the regulatory process. For example, one might have assumed that the latest decennial review of the Bank Act would be carried out expeditiously and on time. But it has now been underway for more than three years and will not be completed when the present Act expires. The revision of competition law in Canada is another case in point. The initial competition act was introduced in June 1971 and parts of the new competition law have still not been approved. These kinds of delays lead to great uncertainties which have a perverse effect on business decision making. While not readily quantifiable, the costs arising from the uncertainty of regulatory policy are undoubtedly significant.

In addition to these extensive but unmeasurable indirect costs, there are also *direct costs* – i.e., the cost of running a regulatory agency and the compliance costs of those who are regulated. The latter, in particular, can be quite large. For example, one American firm estimates its federal regulation costs at $147 million per year. General Motors Corporation has calculated that "the documents it had to file in a single year would make a stack 15 stories high". In a recent Canadian study on the impact of the Anti-Inflation Board it was reported that six large industrial companies estimated that their costs of compliance with AIB regulations ranged from $200,000 to $1,000,000 (and this study only covered the period to mid-1976).[1] In this

[1] These examples are taken from Business Week, April 4, 1977, p. 47 and T. F. Cawsey, R. C. Hodgson, R.J.A. Lord and D. A. Peach, *Managing the Political/Regulatory Environment,* School of Business Administration, University of Western Ontario, 1976, p. 61.

connection it is noteworthy that the compliance costs of regulation probably hit smaller businesses relatively harder than they hit bigger businesses. This stands to reason because, with few exceptions, the same regulations apply to a business with annual sales of $1 million as apply to a business with annual sales of $1 billion.

The study by Trebilcock *et al.* presented below provides a general overview of the arguments for regulation and sets out the nature of the regulatory process. It also assesses the reasons for the growth of regulation and contributes to the discussion of political accountability. Little attention is given to the costs of uncertainty inherent in the regulatory process.

The authors offer an original proposal for the alteration of the current institutional situation – the allowance of income tax credits to interest groups taking part in the regulatory process. This proposal would probably add only marginally to the tax costs of regulation and the benefits of greater public participation might far overweigh these costs. The increase in public participation is important because more and more analysts are calling into question the premise behind the traditional view that regulation is generally in the "public interest". There is growing support for so-called "capture theories" which hold that regulatory agencies are often unduly influenced by those who they are supposed to regulate. Proposals to enlarge the role of consumer groups are intended to create a greater countervailing influence which, it is assumed, will help offset the influence of the regulatees.

Case Studies

The remaining three papers are case studies. The first two provide analyses of particular regulating agencies: the Ontario Milk Marketing Board and the Ontario Highway Transport Board, from the standpoint of their purposes, operations and effects. These studies illustrate the wide differences among regulatory bodies. The third study examines the regulation of a particular industry, the communication industry. Although the role of the Canadian Radio-television and Telecommunications Commission (CRTC) is discussed, some wider, longer term issues are also addressed.

The study of the Ontario Milk Marketing Board, written by Broadwith, Hughes and Associates confirms the opinion stated last year in our study "The Ontario Economy to 1987". Not all agricultural marketing boards are necessarily inefficient. In fact, from an administrative point of view, the operations of the OMMB appear to be quite efficient. Nevertheless, because of the Board's use of its regulatory powers to maintain fluid milk prices at

unnecessarily high levels, monopoly profits for producers are created at the consumers' expense. In our view, the pricing power of the Board should be reallocated to the Milk Commission and the composition of the Commission should be made representative of all parties involved in the milk industry (producers, processors and consumers).

The study illustrates some of the problems which arise when quotas are adopted as part of the regulatory machinery in an industry, i.e., the institutionalization of property rights. For instance, such arrangements create considerable inflexibility and resistance to change. Once a quota system is in place, it is very difficult to take any action that will reduce the value of the property rights which accrue to the quota holder. The possibility of restitution then becomes important, which in turn poses further difficulties. Because of these implications governments should be very wary of introducing quota systems which then give rise to such rigidities.

Bonsor, in his paper, finds few advantages to offset the disadvantages of barriers to entry and higher prices created by the existence of the Ontario Highway Transport Board. It appears that a case might be made in this instance for deregulation, despite the contrary views espoused recently by the Select Committee of the Ontario Legislature on Highway Transportation of Goods.

Should the costs of deregulation be considered excessively high, given the property rights that have been created over a 40 year period since regulation was first introduced, we suggest that *as a minimum* the current regulations should be altered to ensure that all cost factors, and particularly costs to consumers, are included when arriving at decisions. Such a change in procedure might contribute to a reduction in the costs of goods and services to the general public. We are also concerned by the lack of openness of the OHTB perceived by the author of the study.

As indicated above, Hartle approaches his analysis of the regulation of communications in Canada from a somewhat different perspective than do the authors of the other papers. This arises in part because of the vital and highly controversial constitutional issues that are involved in communications and in part because of the complex technical interconnections among the sectors of the industry (e.g. telephony – cable TV – broadcasting) and in part because of the cultural objectives so deeply involved in previous regulatory decisions and in the subsidization of the Canadian Broadcasting Corporation.

Hartle makes four essential points. The first is that, while much of the communications industry must be regulated either because of the limited carrying capacity of the airwaves or the natural monopoly characteristics of telephone and cable TV networks, there are some aspects of the industry where a limited form of competition could and should be fostered.

Secondly, he points out that the national interest in the telephone system presumably is to facilitate inter-provincial communication but that the federal government has largely ignored this aspect of the regulatory question and has been preoccupied with issues that could be dealt with as well or better by provincial regulation. Thirdly, he raises a number of questions concerning the future relationship between the telephone and cable TV system that, he believes, should be considered as a totality in the light of the dramatic technological changes that are taking place. Finally, Hartle addresses the "Canadian content" question and suggests a major change in the role, financing and control of the CBC and a much reduced emphasis on the "Canadian content" objective by the CRTC.

His conclusions are sweeping, highly controversial and he offers few detailed explanations concerning how, in practical terms, what he suggests could be implemented.

The appendix to this volume consists of an inventory of regulatory bodies which existed in Ontario as of October 31, 1977. We believe that this is the first attempt to make these data available to the public and hope that the existence of the inventory will contribute to an understanding of the scope of regulatory impact on the economy.

It may be noted that, in addition to the studies presented here, a number of earlier Council publications have also brought to light various effects of regulation in other parts of the economy. Last year's policy paper entitled *The Process of Public Decision-Making* noted that the subdivision approval process imposed unnecessary delays and costs on building. More evidence on this topic was presented in a study by Markusen and Scheffman entitled *Speculation and Monopoly in Urban Development: analytical foundations with evidence for Toronto.* Our earlier policy paper also suggested that minimum wage regulations have perverse effects for the community.

In the area of social security, a recent Council-sponsored study by M. Krashinsky analyses, among other things, the undesirable effects of some aspects of prevailing day care regulation in Ontario.

Finally, in the environmental area, a Council publication in 1975, written by Dewees, Everson and Sims, discusses emission control policies and sets out possible courses of action.

Alternatives to Regulation

The preceding section suggests that regulatory activities can create serious direct and indirect costs that may well outweigh their benefits.

Agencies often serve to protect the special interest groups which they regulate rather than the consumer or public interest which was their purported purpose when they were established. Frequently, there also is a lack of political accountability.

Alternatives often are available. Why not pursue the public interest via the explicit use of incentives and foster competition as opposed to adopting administrative procedures? It needs to be emphasized that government tax and/or expenditure changes can often be used in lieu of regulation to accomplish the same objectives more effectively. These policy instruments have the advantage, relative to regulation, that their costs are more apparent to the public. As the earlier part of this section stressed, regulatory costs – direct and indirect – generally are unrecognized.

Consider the case of pollution. Economists have concluded that, in general, current reliance on emission standards and of mandatory controls on air and water pollutants is less efficient than a pollution tax. A tax of this type would incorporate the costs of pollution into the price of products and would create incentives for producers to implement effective controls in pursuit of their own self-interest.

Although the variety of policy instruments available to government differ widely, they all have one thing in common: their use creates capital gains and/or losses. This may be illustrated by the regulations controlling entry into the professions. Such controls are advantageous to those who have already been admitted, but disadvantageous to those whose entry is prohibited: a capital gain to the former and a capital loss to the latter.

Although market-oriented alternatives to regulation are available, governments have shown a tendency to rely more and more on direct regulatory methods. Why? Among the possible reasons are the following:

a) Voters find it repugnant that wealthy individuals or groups could "buy" rights to behave in a manner that is unacceptable to them: the notion of the state selling rights to pollute, for example.
b) Similarly, voters find it unpalatable to reward (subsidize) a change in behaviour that they believe to be desirable.
c) Direct regulatory measures are sought by the special interests that gain from them because their impact frequently is not subject to the same regular, open, and objective scrutiny as other policy approaches.
d) Politicians are attracted by direct regulation because it can confer benefits on uncommitted voters without appearing to impose a financial cost on others. No estimates of the social costs of regulation appear in the Public Accounts.
e) Direct regulations may bestow large benefits on a small group but an equally large loss on a much larger group. The former can afford to

make strong representations: the latter are so little affected individually that it does not pay them to organize a protest.

f) Regulations often bestow more discretion on the regulator than would a tax measure (although some subsidies have the same ambiguity). Discretion and discrimination are virtually synonymous in this context. Their application can be tailored to the political exigencies of the moment whereas a tax measure is somewhat more permanent and any change would be noticeable.

g) Compliance with complex regulations imposes costs – costs that constitute the incomes of influential professionals.

h) Bureaucrats too have some stake in complex regulations which increase bureaucratic power and, in addition, generate larger departments and opportunities for employment and promotion.

Recommendations

Analysis of the present political climate in Ontario (and elsewhere) indicates that one would be naive to think that there will be, in the near future, a great reduction in government regulatory activity. Given this situation, the Council believes its recommendations should address two general questions:

1. How can present regulatory structures be improved?
2. How can the degree of legislative responsibility in this area be increased?

Turning to the first question the Council recommends that the Government of Ontario proceed as follows:

a) Set out as clearly as possible the objectives sought through all regulations and all regulatory agencies.

b) In addition to setting out objectives, the criteria whereby the performance of each agency is to be judged should be clearly defined. Only by clearly defining objectives and performance criteria can rational assessments be made of the effect of regulation.

c) Ensure that no one interest group forms a majority of the sitting members of any board or agency and that all major interest groups are represented on all boards. This is necessary to reduce the possibility of regulatory bodies being captured by special interest groups for their own purposes. More representative bodies would provide a better balance in arriving at regulatory decisions.

d) Equivalent tax treatment should be accorded to all interest groups wishing to appear before the hearings of any regulatory body. Specifically, consideration might be given to a scheme such as that proposed in Trebilcock *et al.* which would allow tax credits for interest group activity. The adoption of such a scheme would promote (but would not ensure) the voicing of a fuller range of opinions about the necessity for, and consequences of, regulatory activities. At the same time we recognize that such an arrangement also has drawbacks such as, for example, the possibility of extending and complicating unduly the decision-making process.
e) All information relevant to assessing any particular regulatory measure should be fully disclosed to the public unless an exemption were granted by a Supreme Court Judge.
f) A limit should be imposed on all reviews in order that necessary reforms (if any) could be implemented as soon as possible.
g) Maximum effort should be made to dovetail provincial and federal legislation in complementary areas so as to minimize the transaction costs of regulation.
h) All regulatory agencies should be required to submit an annual report to a Standing Committee of the Legislature. This report, among other things, should explicitly address the question of how well the objectives of the regulatory measures are being met, based on the initially-defined performance criteria established for the measures. The report should also record the minority views of the agency's members, where they exist.

As for the second issue – legislative responsibility – three initiatives are called for:

a) Machinery should be set up for the periodic review of existing regulatory measures. The adoption of "sunset laws" would be one way of achieving this goal. Under this procedure, after a fixed period of time, regulatory legislation would automatically lapse unless re-enacted.
b) When existing regulatory measures are reviewed periodically and when any new regulatory measures are contemplated, economic impact studies of such measures should be carried out by independent bodies. In evaluating measures already in existence, such studies would seek to determine whether or not the standards of performance set initially were being met. In examining proposed new regulatory measures the assessment would seek to define measurable standards of performance for inclusion in the legislation.
c) In instances where deregulation is appropriate, such deregulation

might be implemented over a limited number of years to cushion the adverse economic consequences of such deregulation for particular groups.

In making these recommendations the Council has deliberately avoided discussing specific programs. The Council believes that at this point it is more important to focus attention on a general approach to this complex and difficult issue than on the details of specific regulatory measures.

Markets for Regulation

Implications for Performance Standards and Institutional Design

Michael J. Trebilcock, Leonard Waverman and J. Robert S. Prichard

1. Introduction

The purpose of this paper is to examine the rationales for economic regulation and to explore their implications for the regulatory process. Considering the dual objectives of economic efficiency and distributive justice, we evaluate a number of these rationales in terms of both their economic foundations and their institutional manifestations. Applying the concepts of supply and demand, we analyze private, political and regulatory markets for their similarities and differences with particular emphasis on the factors causing market failure in each. For purposes of the regulatory market, we take our model of regulatory intervention to be the semi-autonomous regulatory agency created with a broad legislative mandate to act in the public interest. Finally, in the light of our characterization of the regulatory process and our assessment of the factors influencing the demand for and supply of regulation, we conclude the paper by attempting to identify issues of institutional design relevant to at least our paradigmatic agency.

2. Markets — Private, Political and Regulatory

2.1 PRIVATE MARKETS AND THE MARKET NATURE OF POLITICS AND REGULATION

Regulation exists to affect the relationships in and results of private markets. Politicians reacting to the various demands placed on them decide

that intervention in these private markets is desirable. In many cases, the entire policy-making or legislative function is delegated by government to the regulator, and in this respect regulators perform similar roles to those of politicians.

Private markets are typified by prospective purchasers voluntarily bidding dollars for goods or services. We normally consider consumers as attempting to spend their limited budget among various goods and services in order to maximize their satisfaction. Producers we consider as attempting to maximize profits, i.e. the difference between what they receive for their goods and services and what they pay out for labour, capital and materials. It is useful also to consider both the political and regulatory arenas as 'markets', albeit very different markets from those private ones typified by voluntary dollar bids. If we adopt this market reference point, we can view the political world as a 'market' where individuals bid votes or other forms of influence for their political party in order to receive 'benefits'. Politicians then attempt to earn this political support in return for a supply of promises. The political market is very different from a private market in many respects but similar in two essential ways. First, it is useful to examine the *demands* on politicians and what politicians are able to *supply*. Second, just as we consider the suppliers of goods and services in private markets as maximizing their self interest: profits, similarly, we can consider politicians as maximizing their self interest: tenure in office, power or monetary gain.

A number of papers have addressed the differences between political and private markets.[1] The political market operates infrequently and encompasses an enormous range of issues and transactions. There are few suppliers of services (political parties). The costs to an individual of acquiring information on some issue which affects him slightly (decreases his net worth by 1¢) are high relative to the expected benefits. Because of the notion of 'bounded rationality', an individual cannot consume all the information available, and thus he chooses only to acquire knowledge on very specific issues.[2] As a result it is possible for political parties to be elected to office with a policy which hurts each member of a majority slightly but makes each of a minority substantially better off.[3] Moreover, since an individual feels that his single vote cannot decide the election, he may choose not to vote. If all persons with similar views also decided not to vote, his candidates would lose. This brief description of the political market indicates a large number of imperfections: few suppliers, limited information on many issues for buyers, and the ability of small, cohesive groups to exert

[1] For example, see Stigler (1971).

[2] The notion of 'bounded rationality' suggests that individuals cannot consume all the information available.

[3] Several references on the nature of political coalitions are Buchanan and Tulloch (1962); Downs (1957); Olson (1965).

pressure to enact legislation which benefits their specific lot at the expense of the majority.

The regulatory market is best considered on two levels – the demand and supply of the power to regulate, and the demand and supply of day to day regulation. The government has a monopoly on the supply of regulation, and various demands are placed on it to intervene in markets. In order to examine the *establishment* of regulatory agencies, we must then examine the nature of these demands for and supply of regulation i.e. the interaction of private and political markets. In order to examine the *operations* of regulatory agencies, we must examine the demands placed on these agencies and the nature of the supply function of regulators. Who appears before agencies, and what do regulators maximize, i.e. what is their incentive structure?

It is our contention that imperfections in the political and regulatory 'markets' exist for two major reasons, reasons which are also essential to the understanding of imperfections in private markets. The two reasons are problems of 'free riders' and 'transaction costs'.

2.2. FREE RIDERS AND TRANSACTION COSTS

Let us take the example of voluntary donations to political parties. With numerous potential donors, each of whom would give a small amount, the total amount of money received by any broad based political party does not depend on the donation of any particular individual. Regardless of any individual's decision to donate or not, the political party survives, and he can enjoy its benefits – hence the 'free rider' – benefits with no costs. The problem of transactions costs is that acquiring information on political party platforms (or product safety or even prices) is costly; organizing group activity (a new political party, for example) is also costly. Therefore, some transactions (private market or political) require costly investments by individuals. Information is not free. Certain activities are economical only if undertaken by a group, yet group organization is costly.

If there were many buyers and sellers in all markets, if information were costless, and there were no costs of organizing group activity (zero transaction costs), and if there were no free rider problem, all markets would be perfectly competitive. "Perfectly competitive" means that an efficient (Pareto optimal) outcome would transpire: no one individual could be made better off without some other individual being made worse off. By *all* markets, we mean political and regulatory as well as private markets. Since transaction costs are assumed to be zero in this hypothetical world, and the free rider problem has been assumed away, every individual would have all the information on each possible transaction now and into the infinite future. Collective goods (parks, public defense) would be provided by groups banding together.

The problems of the free rider and transaction costs, however, are pervasive. Relying on volunteers to fund public defense, for example, would fail, since some (all) would expect a free ride. Relying on effective group formation to defeat a monopoly would likewise fail, as shown below.

Assume that there is a monopoly in the economy; the exact reasons for its existence are as yet unspecified. The monopoly sells an item (which represents a small portion of any individual's budget) only to individual consumers, not to any large single purchaser. How will consumers react to this monopoly? If we assume that other monopolies are present or potential, then it is clear that some political party can appeal to a large part of the electorate and to small, well organized groups (business) by promising anti-monopoly laws. Let us assume, however, that we have only this one monopoly, no other being possible. Since a large number of individuals are each hurt to a minute amount, organizing an effective lobbying group will prove impossible. What if an individual (X) were asked to pay a proportion of the costs of sending a representative to Parliament to petition that the monopoly be regulated? X would assume that his contribution would not be necessary, since all other consumers would pay. All consumers would feel this way, and none would contribute (the free rider problem). Moreover, just to learn of the existence and economic costs which the monopoly imposes on X may not pay (the existence of high transaction costs). The monopoly would continue.

Most economists would not end the story here. While pressure on the demand side may not eliminate the monopoly, pressures on the supply side would. Other firms would see that this monopoly was making supra-competitive profits, and entry into the industry would occur, until the price charged was competed down to long run marginal costs: an efficient outcome. To argue, then, that transaction costs and the free rider problem on the demand side lead to inefficient outcomes is also often to assume the existence of market failures on the supply side. These potential market imperfections characterize a large number of markets, from natural monopolies to the professions.

In the next section, we discuss a number of possible justifications for regulation, justifications which rely on failures in the efficient operations of markets. However, when we discuss some of the forms which regulation takes in Ontario today, it does not appear that the existing range of regulatory institutions can be explained solely as a response to these failures in private markets. Instead, much of the regulation we observe appears to redistribute income to some specific groups, commonly at the expense of the majority. Several authors have therefore classified regulation as having essentially a redistributive not allocative function. (Posner, 1971; Waverman, 1977).

But this result is not surprising. Private markets exhibit market failure because of imperfections on both the supply and demand sides. There is no reason to expect that the political market would be free from similar imperfections: information and transaction costs and free rider problems creating distortions in the interplay of competing forces in the market for political outcomes. What is perhaps surprising is that some forms of regulation are actually intended to reduce inefficiencies rather than to redirect the government purse.

It would be equally naive to expect the regulatory 'market', even if it is sometimes directed to reducing inefficiency, also to avoid redistributive purposes. In the regulatory market, as compared to the political market, the stakes are frequently lower while participation costs are frequently higher. While it may pay a consumer group to petition M.P.s to redirect policy, it will seldom pay such a group to become involved in regulatory hearings on the day to day operations of, for example, Bell Canada. The free rider problem is paramount in the regulatory arena. While an individual may wish to acquire information on whether or not to regulate telephone service, few in our community wish to know about the merits and demerits of accelerated depreciation, forward test years, etc.

Some have argued that regulatory agencies tend to be captured by the industry being regulated.[4] We would argue that imperfections in markets for regulatory outcomes make producer demands likely the demands a regulatory agency would be most responsive to. In Parts 5 and 6 we discuss the political nature of the regulatory process, for after all, regulators are in many respects politicians but with a much smaller constituency.

Since regulation does not appear to maximize broad social interests and is instead 'captured' by specific group pressure, ought we simply to abandon it? (Stigler, 1971). We argue that this is an incomplete solution for two reasons. First, the political pressures which led to regulation will often resurface in some other form. Regulation is but one policy instrument available to government, and the choice of policy instrument is dependent on these political pressures. Second, if we are correct that indeed some regulation is introduced to correct for private market failures but that the regulatory process often becomes subverted by its own imperfections, the answer is to eliminate these imperfections as best we can. In Part 9 of the paper, we examine possible methods of reducing these imperfections.

In the next Part (3), we summarize many of the arguments which suggest that inefficiencies in private markets may justify regulatory intervention. In Part 4, these arguments are critically examined by reference to several regulated sectors. These examples suggest that much actual regulation does not appear to be primarily aimed at eliminating private market failures. We

[4] For example, see Stigler (1971).

then turn in Part 5 to a discussion of the use of regulation for redistributive purposes.

3. Efficiency Rationales for Regulation

3.1 NATURAL MONOPOLIES

A natural monopoly is defined as an industry where economies of scale are such that only one firm will emerge, even if a large number of firms enter the industry. The inevitable conclusion of free competition will be a natural monopoly. Costs of production are minimized by having only one firm. Natural monopolies can be present in industries characterized by high fixed costs and undifferentiated products. Both these conditions must hold for only one firm to service efficiently the entire industry demand. High fixed costs imply that the minimum efficient size for a single firm is large, relative to total industry demand. In the traditional text book case of a natural monopoly, average costs (and hence marginal costs) for a single firm are falling in the region of total industry demand. Where products and services are easily differentiated, and consumers desire a wide range of outputs, a number of firms may not reach the minimum efficient scale and still survive in the market. The concept of 'the' market has to be carefully defined, for it is both space and time dependent. The relevant market may not be all of Canada or even all of Ontario. A number of studies of economies of scale relative to market demand have indicated that the entire Canadian market is too small to support a single efficient firm in the production of jet planes and automobile engines but that similar economies of scale are not prevalent in most other markets. Markets do, after all, grow over time. Cases where a single firm can most efficiently supply the entire demand at some stage most often develop into larger markets supporting a number of firms. If we were to label each infant industry as a natural monopoly, we would find they grow into large unnatural monopolies, monopolies dependent on entry restrictions rather than on pure efficiency criteria.

Assuming that there are cases of natural monopolies, we cannot rely on 'market forces' to erode profits to zero. As a result, pressure is put on the government to regulate these monopolies in order that they earn 'fair' rates of return, i.e. rates of return below what the monopoly could earn if unregulated and more commensurate with what average competitive firms earn. However, as we will indicate in Part 4, in many of the sectors regulated as natural monopolies, economies of scale are not so large as to restrict feasible entry to a single firm.

3.2 DESTRUCTIVE COMPETITION – INFRASTRUCTURE

A second, frequently cited, efficiency rationale for regulation is to avoid the potential for destructive competition, especially in service industries thought to be essential to the public interest. (Clark, J.M. 1961; Duesenberry, 1958). These industries are often in the infrastructure of the economy, for example, transportation and communications.

This rationale is tangential to the natural monopoly arguments made in the previous section. Even where the industry is not a natural monopoly, scale economies and fixed costs are sufficiently high to limit viable entry to a few firms. If firms engage in competitive pricing, prices will be driven down to short run marginal costs which will be below average costs, creating losses for some and bankruptcy for others. Some authors in the 1920s and 1930s thought that the normal operation of the competitive market involved this kind of destructive competition.

> . . .The business cycle had become a recognized part of the order of things, with its recurrent periods of excess producing capacity, during which active competition tended to lower prices until even efficient concerns would make little or no return on their investment. . .restaurants, theatres, golf clubs, garment making industries, railroads and street cars, building and other trades – all have their peaks, daily or seasonal. And all industries suffer in common from the unpredictable irregularity of the business cycle.[5]

It is also possible for destructive competitive tendencies to occur in industries with large numbers of firms. This argument was used to extend regulation to the Ontario trucking industry in the 1930s, even though hundreds of firms were in existence. The market for agricultural products is characterized by many firms, an uncertain harvest for each, and inelastic total consumer demand for food products. Farm prices can experience great cyclical swings, and it has been suggested that regulation is necessary to reduce destructive competition in this sector as well.

In Part 4, we critically examine whether tendencies to destructive competition are appropriate rationalizations to explain several forms of regulation in Ontario today.

3.3 INFORMATION LIMITATIONS

For a number of goods and services, a competitive unregulated market

[5]Clark, J.C. (1923) as quoted in Kahn (1970, 7). See also Clark, J.M. (1961); Reynolds (1940); Brandeis (1937).

will not provide the 'optimal' amount of information in order for consumers to make a correct, informed, choice among providers of the goods and services. To understand the nature of the problem, let us examine the workings of an unregulated, free enterprise medical market.

Anyone could call himself a doctor and offer treatment. The ill would have to evaluate all the information and decide on the ailment and what doctor and what treatment to use. A consumer is presumed to be able to judge the relative effectiveness of products in other markets, for example, the value of several alternative refrigerators. He can inform himself of their relative attributes, ask others how the refrigerators performed in their simple tasks, or read magazines presenting objective reviews of the products. For other products purchased frequently (deodorant), the consumer can use his own experience as a guide. Imagine this same consumer with an undefined pain in the lower abdomen. He cannot ask others what they did for pain, since their experience is likely different. Nor is the consumer willing to experience alternative treatments, since severe illness untreated is far more personally costly than underarm odour. Nor is it possible objectively to judge doctors. If one doctor says he has a 100% cure rate and a second 70%, is the first a better doctor than the second? While past experience is some indicator of a doctor's ability, it cannot indicate whether or not he attempted difficult cases, whether his hand will slip this time, etc.

Because of these informational limitations, as well as the uncertainties of both the illness and the possible cures, a free enterprise medical market will be *inefficient* – too many 'quacks' and too low an amount of 'true' information produced.

What holds true for the medical market is also true for some other professions. For example, individuals need lawyers infrequently and are largely unable to judge their competence. The case may be less compelling, since if the lawyer is not handling the case well, an individual is likely to be more aware of that fact than if the doctor is ruining the operation. Still, lawyers handle large sums of money for clients and advise them of their legal rights, services where misinformation is potentially very costly. The cases where we would expect to see inefficient free enterprise professional markets are those where demand is infrequent and non-repetitive, experience is not a possible guide for choice of suppliers, little information on the service is provided by each available supplier, outcomes are uncertain, and large irreversible costs are incurred if the wrong action is taken (for example, death).

The problem of limited information or incorrect information is not limited solely to the professional service markets. A number of arguments have been made that the free enterprise system generates too little information on the nature of hazardous products and hazardous working conditions. Suppose, for example, that cigarettes cause cancer. It is not in the interests

of any single producer to investigate the extent of the potential risk, for what does the producer do with this information? He cannot advertise the fact that cigarettes cause cancer, for revenue will fall.[6] Any single consumer cannot bear the entire costs of research on potential carcinogenic properties of cigarettes. The notion of the free rider suggests that, if each cigarette consumer is asked to volunteer his share of cancer research costs, he will opt out for two reasons. First, any individual, as has been discussed, will decide that the research effort does not depend on his donation. Second, he may prefer not to know, i.e. the information may make him feel worse off.

Moreover, an independent business is unlikely to find this form of information production a profitable activity. Having spent large amounts to prove cigarettes are cancerous, how will a private information producing firm earn sufficient revenue to cover these costs? The information is difficult to sell, especially since anyone who has bought it can pass it on for free. Moreover, to maximize the welfare of society, knowledge should be disseminated at the marginal costs of reproducing the information, not at the average costs of producing the knowledge. Therefore, even if profit maximizing firms were able to earn competitive rates of return by warning of the hazardous nature of products, the high price charged for this knowledge (high relative to the costs of dissemination – photocopying one page and adding postage) means that too few consumers would have information.

As a response to these market failures, regulation is imposed, limiting entry into a number of professions and imposing certain quality standards for hazardous products and occupations. However, as we show below, much of the actual regulation does not directly address these market failures but instead reduces competition and consumer welfare.

3.4 UNCERTAINTIES

Arrow, among others, has suggested that the uncertainty of private market outcomes leads to demands for regulation aimed at decreasing uncertainty. (Arrow, 1963). Many outcomes of market processes are uncertain. We have already discussed the notion of risk with respect to the medical market – the illness and the efficacy of the cure are not completely known. Of course, most outcomes in our economy are uncertain, but this does not mean that all lead to inefficient equilibria.

A producer may be uncertain as to how many widgets he will sell next year. He can, however, identify some reasonable range and operate so as to maximize his *expected* profits. This form of uncertainty does *not* destroy the efficiencies of markets. Climbing a ladder is a hazardous task: I may slip,

[6] It will not pay a producer to advertise that his product is safer than the products of his competitors, if all products are relatively unsafe, and any such advertising would cause total industry demand to fall by a greater percentage than his anticipated increase in market share.

hurt myself, and even bear an irreversible cost, death. This uncertain hazard does not mean that all ladders should be banned. Experience and information allows me to estimate the probability that I will be hurt using the ladder. I then compare the expected costs and the benefits (e.g. changing a light bulb) and use the ladder or not. This uncertainty does not create inefficiencies in the ladder market. However, uncertainties to which an individual cannot estimate or assign a probability of occurrence do lead to inefficient outcomes. Many problems of markets, for example in medicine or in industries such as asbestos mills, are not that the outcomes are uncertain, but that we have *no information* on many of the possible outcomes. Even where probabilities of events are known, some extreme events may be so undesirable that risk-averse individuals prefer not to risk any chance of them occurring. Individuals may then prefer to forego the benefits of nuclear power, for example, because the costs of an explosion, no matter how remote, are too extreme to bear. As we indicated earlier, farm prices are uncertain from year to year. Risk-averse producers (and consumers) could be made better off by decreasing the variability of prices.

As a response to these uncertainties, we regulate the outcomes and production processes in a number of markets. However, as we show below, it is possible that some of these regulatory responses reduce rather than improve social welfare.

3.5 EXTERNALITIES – IRREVERSIBILITIES

The operation of markets (whether competitive or monopolistic) can generate effects on individuals who are not parties to the transactions. These effects are therefore characterized as third party effects or externalities. A simple example is the factory which pollutes the air and imposes cleaning and other costs on all those who live nearby. These neighbours may neither consume the product the factory produces nor work there. The market solution may be more smoke than is efficient.[7] If the neighbours would organize and bribe the factory to move, or limit the output of smoke, the total costs they incur might be less than the externalities they are forced to bear. However, some neighbours will decide that they can receive a free ride. In addition, the costs of discussions and organizing (transaction costs) are high. As a result, market outcomes will be inefficient where third party effects are prevalent.

Pollution is not the only example of externalities. The medical market experiences several. The carrier of an infectious disease, on deciding on treatment, does not take into account the costs he imposes on all his

[7]See Coase (1960).

contacts. Moreover, if members of our society were voluntarily to inoculate themselves, any one individual may well decide to forego the costs of inoculation, since if everyone else is immune, the possibility of catching the disease is close to zero.

Some externalities are irreversible. When our generation decides to erect a hydro power station destroying the beauty of a remote wilderness site, we have all decided for future generations that they cannot enjoy the beauty of that site. If these future generations could vote today, they might well choose beauty over hydro power.

How do we overcome these inefficiencies of private markets? To limit pollution, we could tax the smoke emission of the factory or auction off a limited number of pollution rights. (Dales, 1968). Although economists agree among themselves on attempting to invoke market-like incentives such as these to limit these external market effects, politicians tend to prefer prescriptive regulations, mandating particular forms of conduct.

4. Some Forms of Regulation

While in the previous Part we have discussed some of the possible breakdowns in market processes, we have refrained from discussing either the relative significance in practice of each form of break-down or possible policy responses to them. One instrument available to eliminate these market failures is regulation. However, we propose, in this section, to show:

1) that in may cases of regulation, the market failure is not substantial;
2) that in many cases, regulation is not the most efficient solution;
3) that in many cases, the extent of regulation in Ontario today cannot be explained by these efficiency rationales.

We do not examine all of the many regulatory boards but instead pick several important sectors, each choice aimed at highlighting one or more of the possible rationales for intervention discussed in Part 3. We indicate how actual regulations often are simply not responsive to private market failures.

4.1 PUBLIC UTILITIES

A number of sectors of our economy are regulated as 'public utilities': transportation, communications, pipelines. Actual regulation is largely of the form we would associate with a natural monopoly – maximum prices are regulated so as to prevent monopoly profits. But these sectors, aside from pipelines and some portion of telecommunication services, are *not* natural monopolies. (Waverman, 1974). It would clearly be inefficient to have, say,

six pipelines able to transport natural gas between Alberta and Ontario, the specific one to be used at any instance decided by the price charged. Price would be driven down to the marginal costs of transporting gas – 5 to 10% of the average total costs. Because of the inherent economies of scale and the single, undifferentiated product of pipelines – gas transportation – constructing a single pipeline is most efficient. In order to limit entry, costs and price, a single firm is granted the right to build the pipeline in return for accepting a ceiling rate of return on its profitability. Government regulation is not the only solution which has been offered to the problem of natural monopolies. Demsetz and others have argued that the state should auction off the rights to construct the pipeline, the bids consisting of the price which would be charged to transport the gas (Demsetz, 1968; Stigler, 1968). Even though only one firm would build the pipeline, one could conceive of a competitive market in bidding for the right. The bidding strategy has the benefits of yielding the lowest cost pipeline and eliminating any monopoly rent, since any padding of costs would result in a higher price than from a truly efficient producer. As numerous authors have pointed out, regulation of a natural monopoly by restrictions on the rate of return does not yield incentives to reduce costs and may actually give the firm incentives to use too much capital (Averch and Johnson, 1962).

Many of the sectors regulated today as natural monopolies we would label pseudo-natural monopolies–industries where at some time in the past it was efficient to have one firm produce the service, but today industry demand could support a number of firms. The usual example of such pseudo-natural monopolies is the transportation sector. At one time, for many localities, the railroad was the only source of transportation service. Today there are few areas in the province which have only one potential transportation supplier. Rather than regulation being disbanded once competitors to rail appeared, regulation has expanded to encompass most forms of transportation.

What natural monopoly aspects does trucking entail? Fixed costs are low (trucks can be leased); truckers do not provide their own road bed (unlike railroads); consumers desire highly specialized and differentiated output. In short, the transportation sector today bears no natural monopoly characteristics (Baumol and Klevorick, 1970). The expansion of regulation even when the supposed rationale for regulating rail disappeared with the advent of competitors to the 'natural' rail monopolies, indicates that either efficiency rationales may not have been the motivation in the first place or that over time the process of regulation has been able somehow to take on a new direction and life.

The companion paper by Norman Bonsor on the Ontario Highway Transport Board shows:

1) that regulation was extended to trucking in the 1930s because of pressure of truckers,
2) that the sector does not exhibit more than minimal scale economies, i.e., that many firms could operate at most efficient scale,[8]
3) that the 'destructive competition' alleged to have affected the industry in the 1930s and created demands for regulation was simply a competitive response to excess supply conditions and falling input prices,
4) that destructive competition is unlikely today,
5) and that entry restrictions in the trucking industry appear to be associated with higher prices for service (McLachlan, 1972; Sloss, 1970; Palmer, 1973).

Similarly, the entire telecommunications sector cannot be labelled as a natural monopoly. Three carriers offer intercity telecommunications services (TCTS, CNCP, Telesat), while many homes have two sets of wires suitable for communications (telephone, cable TV). It is at present uneconomic to have each home or business equipped with ten sets of wires and ten telephones, each suitable for a local call to another home or business. As in the pipeline example, price would be driven down to the marginal costs of making a local call; all firms would lose money; firms would exit from the industry, until only one survived. However, this natural monopoly in local communications equipment for making switched calls does not require a corresponding monopoly in services. A large number of firms could offer meter reading, information or other competitive services.

Can we explain public utility regulation by relying on destructive competition arguments: without regulation these 'important' sectors would exhibit periodic bouts of excess capacity, rate wars, etc? These instabilities in essential services would damage social welfare over and above the losses incurred in the sectors themselves.There are a number of serious problems with the view that this form of regulation exists to limit destructive competition and instabilities. First, why is one service more essential than another? Are air fares to France more important than the price of apples? Most food products are unregulated as to quantity and profitability, but they are as 'important' as the so-called 'public' utilities. Second, public utilities, if unregulated, would be unlikely to exhibit more instability than many other markets. The garment industry is highly 'unstable' – there are numerous bankruptcies due to great swings in demand. Few have suggested we regulate the garment industry. Rate wars did exist in the rail sector, but these were before the great increase in the number of competitive modes. We should not continue to accept motivations which may have been plausible in the Great Depression. Why have these sectors remained regulated?

[8]See studies by Koenker (1977); Meyer, Peck, Stenason and Zwick (1969); Palmer (1974).

4.2 SELF-REGULATION, LICENSING, FRANCHISES

There are very few analysts who would suggest that taxi cabs, the legal profession, and the medical profession are natural monopolies. Regulation exists to correct for other potential market failures – the potential for an inappropriate quantity and quality of doctors, lawyers and taxi cabs to appear in competitive markets. We argued in Part 3 that lack of consumer information or highly uncertain outcomes from transactions may impair the efficient operation of certain private markets in these respects. Regulation is, of course, but one answer to the problem. Can we not improve the performance of these markets by other means? In both the medical and legal markets, some of the potential harms of a free enterprise system can be eliminated with complete insurance markets. The wronged client can then sue the incompetent practitioner. However, given the real problems of proving incompetence rather than a risky case well done, competitive markets, even with malpractice insurance, are liable to generate inefficient outcomes. We cannot provide all the required insurance markets. Even when we are able to the moral hazard problem would arise. Simply stated, this problem occurs because an individual able to insure himself fully against *all* possible medical costs has less incentive to prevent illness.

Conceding then that competitive markets are unlikely to generate the correct medical product, the government licenses all doctors. Standards are set, exams must be passed, and the public is assured that the doctor has a minimal training. Of course, the doctor could still be incompetent for a particular case or, in general, inept.

However, more restrictions are imposed than simply setting standards and licensing anyone who wishes to be a doctor or lawyer. A large number of professions, doctors, lawyers, embalmers, and barbers for example, have been granted the power to regulate themselves. Self-regulation entails for most professions that boards appointed by the profession not only set standards, and license, but in effect *limit* the number of individuals allowed to practice. What public objective is served by having quotas set on the number of professionals, allowing them to set minimum fees, and preventing advertising of all kinds (including price advertising)?

The notion that minimum fees must be set by a profession and that advertising should not be allowed rests on the notion that the patient should not choose a professional on the basis of price alone. Moreover, some professionals e.g. doctors, might advertise that they are "better" than average, i.e. that a greater percentage of their patients recover, while, in fact, they only take on patients with less severe ailments. Doctors argue that a lower priced doctor tends to attract patients, although that doctor is 'worse' than average. Victor Fuchs, in his book *Who Shall Live*, has argued that price

competition or at least price advertising would help promote efficiency in medical and similar markets (combined with licensing). (Fuchs, 1976).

Doctors are allowed to regulate themselves to prevent unscrupulous suppliers from taking advantage of uninformed consumers. Can we use the same arguments to answer why architects or engineers, for example, are self-regulated: incompetence on the part of the designer will lead to the collapse of a building and impose high costs on innocent individuals? Here, though, buyers of the service are large, well informed and often engage in repeat transactions. Experience and information may be substantial. What then of barbers? What social waste would arise in a competitive hair cutting/styling market? One can see few inefficiencies in a free enterprise barbering economy – the transaction is relatively costless, frequently repeated, and results of other transactions by the barber easy to observe.

The conclusion is clear. Even given some underlying justification for regulating the type of entry into certain professional markets because of problems of incomplete informational flows and uncertainty, much of the regulation is not a response to the problems. Moreover, there are numerous occupations which exhibit none of the failures of the medical market but are allowed to impose restrictive regulations. Market failure cannot then wholly explain the existence of self-regulation.

The taxi cab market is susceptible to a similar analysis. Here, the government itself issues a limited number of licences or medallions and imposes limitations on fares charged. Supporters of this form of regulation have suggested that a free enterprise taxi market would produce too many cabs at peak hours and too few at 3:00 a.m. (Schreiber, 1975). Destructive competition would occur at noon, but any price could be charged on a rainy evening. Moreover, it is argued that consumers cannot shop around for the best price. If a cab stops, the traveller is prone to accept the fare asked, otherwise he will have to wait for another cab. The taxi market is then thought to be characterized by incomplete information.

Others would argue that the taxi market is not a case of destructive competition and incomplete information.[9] It is more costly to travel at 3:00 a.m. than 12 noon, since fewer passengers in general wish to travel at 3:00 a.m., and therefore the probability that a driver will find a passenger is lower. As a result, prices should be higher at night. The competitive market will tend to produce price information. Cabs could band together in associations – all 'blue' cabs, for example, charging $3.00 for a 3 mile trip between 8:00 a.m. and 8:00 p.m. If the acceptable fare for a three mile trip is $3.00, a cab driver asking $4.00 must forego customers.[10] It is a case not just of

[9] For example, see DeVany (1975).

[10] Why would blue cabs not appear in a free enterprise taxi market, each blue cab agreeing to a certain advertised fare?

the traveller waiting for another cab but of the cab driver waiting for another customer. Moreover, limiting the number of cabs and not allowing a premium for night calls will tend to *reduce* the availability of cabs at 3:00 a.m.

Problems of incomplete information could be solved by fare setting, unaccompanied by licence restrictions. But most large Canadian cities, except Edmonton, limit the number of cab licences, while only some of them also limit fares.

> By 1972, medallions net of cab [in Winnipeg] were selling for up to $16,000. In 1972, taxi licences were selling for $30,000 in Vancouver, more than $18,000 in Toronto and in Regina prices exceeded $16,000.[11]

While we may debate whether the public is well served by restrictions in the taxi cab market, it is clear that the owners of medallions are better off. No city auctions off the medallions. In all cases, the medallion is virtually given away. Medallions can subsequently be traded in markets, and any subsequent purchaser earns only a competitive rate of return in the taxi cab business.

The taxi cab market is but one example where the government gives some monopoly power in the form of a franchise to individuals or firms. It is also suggested that, because there are a limited number of frequencies for radio or television stations, this market will tend to 'overcrowd', another form of destructive competition. *If* the correct response is to limit entry, what social purpose is achieved in each of these instances when the franchise is given away not auctioned off? Efficiency failures in the market mechanism do not explain gifts of property rights.

4.3 MARKETING BOARDS

To this point, we have largely limited the discussion of destructive competition to industries with high fixed costs. Other sectors, where demand is relatively inelastic, supply responses slow, and storage costly, can also experience a form of "destructive" competition. A prime example cited in Part 3 is agricultural products. To some extent, a farmer's production is uncertain, outside his control, and dependent on the vagaries of nature. Demand for staple agricultural products is inelastic. As a result, when the weather is good, and farmers experience bumper crops, price falls, and because of the inelasticity in demand, total revenue falls. (Samuelson, 1971). In a poor year, production is small, price rises, and because of inelastic demand, total farm revenue increases. Because of the price increase, each farmer may plan to expand acreage in the coming years. As a result, total supply increases, and price and revenue fall.

[11] Reschenthaler, G.B. (1976, 476).

These instabilities of competitive commodities markets are, of course, undesirable to producers. Consumers also, if risk-averse, would be better off with more stable prices. (Turnovsky, 1974). A number of schemes have been developed which use inventories or buffer stocks to smooth out the swings in production and hence in price and farm income.[12] Marketing boards, such as the egg and poultry boards, however, operate through the use of *quotas.* In the *Ontario Milk Act,* no mention is made of efficiency or market failures. There is no preamble to the Act suggesting that regulation is needed to smooth out fluctuations in income or to provide orderly marketing. Instead, the supply of milk or eggs is limited by an enormously complex and burdensome formula. The Egg Marketing Board recently went as far as to attempt to prevent stores from selling eggs as loss leaders. Restrictions on supply are *not* the answer to any predilection to destructive competition in agricultural products. The existence of these boards must be explained by other rationales.

4.4 SAFETY REGULATION

Assuming that competitive markets will often not supply the correct amount of information on the nature and extent of hazardous products, what policy responses could help improve these markets?

Cornell, Noll and Weingast have examined a number of alternatives, (Cornell, Noll and Weingast, 1976) including the liability system, insurance schemes and the role of regulation. The liability and insurance systems offer compensation for damages; they also create incentives for firms to prevent injuries where prevention is less costly than compensation.

The liability system cannot by itself represent an answer to the problem, since the courts will find it difficult to determine liability for a highly uncertain event. But it is precisely these events which create market failure. As we have discussed earlier, complete insurance will distort individuals' incentives so that they do not take normal precautions against the event they have insured against. Regulation, by creating a certain minimum standard, has two major defects. First, the standard may be set so high that the prevention costs far exceed the benefits. Second, the regulation may have distorting effects on industry structure.

Peltzman, in assessing the 1962 Drug Amendments to the Food, Drug and Cosmetics Act in the U.S.A., has concluded:

> The 1962 drug amendments sought to reduce consumer waste on ineffective drugs. This goal appears to have been attained, but the costs in the

[12] The operations of the Canadian Wheat Board fall along these lines.

process seem clearly to have outweighed the benefits. ... The net effect of the amendments on consumers then, is comparable to their being taxed something between 5 and 10 percent on their $5 billion annual drug purchases.[13]

The impacts of quality regulation on competitive conditions within an industry are often *wholly* neglected in the setting of standards. For example, the Council on Wage and Price Stability in the U.S.A. has recently examined new standards for paper matchbooks set by the Consumer Product Safety Commission. The Council concluded that:

a) the proposed standard could raise costs to consumers by approximately $568 million annually;
b) the utility of matches to users would be diminished;
c) the new standards would lead to greater concentration in the matchbook industry, since the retailing costs necessary to meet the new product standards would probably result in the exit of half the existing eleven manufacturers.[14]

The Federal Treasury Board is at present examining social regulation in Canada. Included among a wide variety of studies are six case studies of specific quality regulation – cosmetics, insulation, safety glass, radiation levels in uranium mines, energy labelling and school bus construction standards. These studies should shed light on how competition in Canada is affected by quality regulation. The objectives and effects of standards in the area of social regulation deserves far more study.

4.5 SUMMARY

Plausible rationalizations for regulatory interventions in private markets in order to eliminate market failures were presented in the previous section. However, in this section, an analysis of a limited number of actual forms of intervention indicate that eliminating market failures does not appear to be the sole or even primary motivation. Studies of the *total* effect on economic efficiency of various regulatory regimes indicate that social welfare is reduced not increased in many cases.[15] If regulation is intended to eliminate market failures and increase economic efficiency, how can this be allowed to happen? We now turn to an analysis of the distribution of gains and losses from regulation and a discussion of redistributive rationales.

[13] See Peltzman (1973).

[14] Council on Wage and Price Stability News Release, Washington (1976).

[15] For example, see Peltzman (1973); Peltzman (1975); Posner (1975); MacAvoy and Pindyck (1975); Stigler and Friedland (1962); Wilson, G., (1964).

5. Why regulation proliferates

The tenacity of many commentators in critically demonstrating time after time that the social costs induced by regulation commonly exceed those generated by unregulated markets and that even where regulation may be justified, less efficient methods of regulation are commonly chosen over more efficient methods has been matched only by their frequent failure to persuade the rest of the community of the virtues of their views. For example, Posner in a recent article (Posner, 1975, 807), cites data which indicate that in the U.S., physicians' services cost 40% more than they otherwise would without competition-reducing (self) regulation, eye-glasses 34%, trucking 62%, oil 65%, airline services 66%. Even though only about 17% of the U.S. G.N.P. originates in heavily regulated industries, Posner tentatively estimates that the social costs of regulation are equal to 1.7% of the G.N.P., while the social costs of monopoly in manufacturing and mining, highly concentrated sectors of the economy accounting for 30% of the G.N.P., are equal to only 0.6% of the G.N.P. Yet calls for deregulation have rarely received a sympathetic political ear.

Charles Schultze, in a recent article in *Harper's Magazine*, entitled "The Public Use of the Private Interest", (Schultze, 1977) argues convincingly that, even where regulatory intervention may be called for by market failure, regulatory regimes too often eschew market-like incentive systems for inducing desired behaviour and thus compromise the efficient attainment of regulatory objectives. For example, instead of imposing effluent taxes on polluters or auctioning off pollution rights, (Dales, 1968) we prescribe elaborate effluent standards across an industry, irrespective of the different capacities of individual firms to reduce effluents if faced with appropriate incentives. To conserve energy, we engage in futile "Don't Be Fuelish" public relations campaigns instead of raising energy prices. We allocate broadcasting licences at nominal cost to successful applicants, instead of auctioning them off to the highest bidder (with the state exacting the monopoly rents).[16] To subsidize access to education, we fund educational institutions instead of subsidizing students directly, forcing institutions to compete for their subsidies, etc. etc.

All of these criticisms of existing forms of regulation seem to make good economic sense. Overall economic efficiency in the allocation of our resources seems a laudable primary collective goal. Instrumental efficiency, as a secondary goal, in achieving *any* regulatory objective (including distributive objectives), seems even more obviously in the public interest. The fact that often the public does not seem to agree, at least in its revealed political

[16] See Coase (1959).

preferences, should, however, be reason enough to look somewhat harder at the purposes of regulation.

We would assert that the scale and diversity of regulation observable in our economy today demonstrate that there is no generalized public interest in the goal of allocative efficiency, i.e. maximizing the value of the social product. As Adam Smith pointed out long ago, this goal is furthered strictly as a by-product, or fortuitous function of the pursuit of self-interest through market exchanges: "[Every individual] generally, indeed, neither intends to promote the public interest, nor knows how much he is promoting it . . . he intends only his own gain, and he is in this, as in many other cases, led by an invisible hand to promote an end that was no part of his intention".[17]

It is crucial to recognize that, in maximizing their self-interest, individuals and interests in our society will have no *ex ante* preference for non-collective forms of resource allocation (markets) over collective forms of allocation (regulation). They will favour the one or the other, depending on which maximizes net benefits. In other words, there will be a marginal rate of substitution between the two forms of allocation.

If one examines the self-interest of the major actors in our economic system, it is not difficult to see why collective decision-making is often preferred to non-collective decision-making through the market.

5.1 PRODUCERS

It is, of course, a myth that business, or indeed anybody else, *likes* competition. To enjoy being exposed to the constraints and vicissitudes of competition would be a particularly perverse form of masochism, at least if there is some less demanding way available of making a living. As Stigler remarks:

> Competition, like other therapeutic forms of hardship, is by wide and age-long consent, highly beneficial to society – when imposed upon other people.[18]

Thus, if the marginal benefits to producers of promoting favourable collective decisions exceed the marginal costs, then rational self-interested behaviour will involve pursuing this course. Strategies designed to secure tax concessions, subsidies, tariff protection, output and pricing regulation, and other forms of protectionism and government hand-outs, become as much a part of the stock-in-trade of business as strategies designed to increase market shares through non-collective private market activity. This is not to say that producer interests are always homogeneous. Often some producer

[17] See Smith (1937, 423).

[18] See Stigler and Cohen (1971, 49).

interests will seek to advantage themselves through regulation at the expense of other producer interests, for example by promoting high tariff protection or high entry barriers to an occupation through licensing (self-regulation).

5.2 CONSUMERS

Consumers might be thought to be the chief beneficiaries of vigorously competitive markets and therefore the chief promoters of policies designed to this end. This is not as obvious as it seems at first sight.

Groups of consumers are in a position to advance their interests through favourable collective decisions at the expense either of other consumers, or of producers, or both. For example, it may be in the interests of current consumers of oil or gas to try to induce the government to regulate energy prices at the expense of both producers and future consumers for whom supply or terms of supply may be adversely affected through reduced investment in exploration. It may be in the interests of a group of consumers to try to induce the government to impose rent controls, especially if they are current tenants, at the expense of landlords and future apartment seekers. It may be in the interests of a group of consumers to try to induce government to change the zoning status of their neighbourhood, e.g., to prevent the construction of low-income or high-rise housing, at the expense of both owners of developable land and future demanders of housing. Or it may pay a group of consumers, because of high aversity to risk, to try to induce the government to impose product safety or performance standards on an industry, at the expense perhaps of producers and other consumers with a lower aversity to risk who are coerced into sharing the cost. Similarly, through utility rate regulation, groups of consumers will seek to secure cross-subsidization of their service requirements by other groups of consumers.

5.3 BUREAUCRATS

Self-interested behaviour on the part of bureaucrats, upon whose advice political decision-making heavily depends, decrees as a baseline that they not advocate themselves out of a job. This will involve, at one level, negotiating security of tenure with the State as their employer, and at another level advocating policies to their political overseers which have a heavy bureaucratic orientation, entailing more jobs, larger fiefdoms, and more power and prestige.[19] It is difficult to see why the virtues of non-collective decentralized forms of resource allocation are likely to rank high in a bureau's scale of priorities.

[19]Cf. Tulloch (1975); Bartlett (1973, c.6).

5.4 REGULATORS

Why do regulatory agencies, once installed, never get dismantled? In the substantial literature addressing the question of what objectives regulators maximize, and what biases they are prey to,[20] the simple point is often lost sight of that, whatever else regulators feel inclined to do, they will *regulate*. The output of regulators is regulation, and they are likely to perceive their productivity as being measured in terms of such output.[21] Regulation becomes as much an end as a means. Few regulatory agencies have ever felt justified in regulating themselves out of a job. Instead the much more common phenomenon is so-called regulatory "drift" where the regulators incrementally extend their regulatory domain.

5.5 REGULATEES

As Tulloch has recently pointed out in an insightful article, titled appropriately. "The Transitional Gains Trap",[22] another reason why regulation tends to be an additive process is that forms of regulation conferring windfall gains on parties (e.g. agricultural quotas, self-regulating licensing regimes, zoning laws) typically induce early capitalization of these gains, so that investments by subsequent parties in the regulated sector will reflect a relatively normal rate of return. Thus any revocation of the regulation will inflict real welfare losses, a prospect likely to be bitterly resisted by the interests in jeopardy. Tulloch argues that, on this account, much regulation, once enacted, is politically irreversible, irrespective of its continued aptness.

5.6 MEDIA

The media, as two-way information intermediaries between collective decision-makers and members of the public, obviously play a critical role in influencing collective decision-making. What would a self-interest postulate imply about their behaviour?

Recalling our earlier analysis of information costs in political markets, it seems likely that the media, recognizing the limited investments in information that most people find it rational to make in public policy issues, are likely to "trivialize" complex policy questions both in terms of the identifi-

[20] See Peltzman (1976, 211); Joskow (1974, 291).

[21] Cf. Wilson, J.Q. (1971, 47-48).

[22] See Tulloch (1975, 671).

cation of the nature of the issues and in terms of the proposed prescriptions for their resolution. This may often involve advocacy of simplistic collective policy responses to perceived matters of public concern so that stories can be "turned over" at a sufficient rate to retain the public's attention. Such a media strategy is of course largely a reflection of the public's own natural enough desire to believe that all problems are soluble, even if this entails no more than supporting a collective decision, manifested in laws or regulatory arrangements, simply telling the problem to go away.

5.7 SECONDARY INDUSTRIES

A number of politically influential "secondary industries" benefit from regulation: lawyers, accountants, "experts", consultants, and academics. Lawyers, who for whatever reasons play a disproportionately large role in the regulatory, bureaucratic and political processes of this nation, bias resource allocation decisions towards collective decision-making in various ways. First, they materially benefit in their professional activities from more laws rather than fewer. Secondly, their own industry is closely (self) regulated, and presumably this influences their attitudes towards collective decision-making. Thirdly, as a discipline, law is rule-oriented, and lawyers seem to have an almost boundless faith in the efficacy of laws. If a problem exists, pass a law telling it to go away. If it does not (as is likely), pass another law articulating the injunction more emphatically. Academics, who often see the principal impact of their work as informing collective decision-making, often derive substantial financial and other perquisites from participating in public policy formation and often hold publicly-tenured life-time appointments, are again likely to be biased towards collective decision-making and against non-collective decisions through the market.

5.8 THE POLITICIANS

Under a self-interest postulate of human behaviour, politicians are assumed to be only maximizers of political support (both vote and non-vote forms of support) rather than proponents of any independent conception of the public interest. (Downs, 1957) They will adopt whatever policies are required to get themselves elected or re-elected as the case may be. In other words, collective decision-making is designed not to further "the public interest", which on the view argued here is a concept without relevance and probably of little meaning, but to establish some acceptable state of social

equilibrium among competing interests, out of which an effective coalition of political support can be forged.[23]

Politicians might be thought to be neutral mediators amongst the interests outlined above. However, there appear to be a number of factors present in our political system that would seem often to bias politicians toward collective regulation of resource allocation rather than unregulated market allocations. To the extent that unregulated markets exhibit imperfections, as most do, and to the extent that some groups are unhappy with the distributive outcomes of market forces, as will almost always be the case, politicians will be pressed to intervene. Given that they have, after all, been elected to *govern,* i.e., make collective decisions, any state of the world short of some mythical state of perfection is going to lead some groups to demand that state of perfection and some politicians to promise to deliver it.

Given that it is only a small exaggeration to say that at any point in time politicians are either coming out of an election or going into one, they are constantly figuring out ways of both making gestures at honouring past promises and of fashioning new ones. The one choice that is not realistically open to any political party is doing or promising nothing. As with regulators, so with politicians: the output of the political process is above all collective decisions, i.e., laws and regulations, and productivity tends to be widely perceived in terms of this output, partly irrespective of its intent or effect. To govern has come to mean in large part to pass laws.

The short time-frame within which parties-in-office operate exacerbates this tendency. In the competition among political parties for votes within this abridged time-frame, a kind of adapted Gresham's law sets in where unrealistic promises displace realistic promises: the public so heavily discounts all politicians' promises that the information costs to a political party of convincing voters that its policies are realistic and those of its opponents unrealistic become prohibitive. Thus, a party is forced to alter its policies to reckon with the exaggerated discount factor that the public will apply to them.[24] The successful party will then be forced to make some gestures at delivering the undeliverable.[25]

6. The Nature of the Regulatory Process

If one accepts that regulation is fashioned out of the interplay of the forces outlined above, it will be evident that much regulation will have little

[23] See Schubert (1960), especially chapters 4 and 5.

[24] Cf. Akerlof (1970, 488).

[25] See, for example, Hartle (1976); Ontario Economic Council (1977).

to do with allocative efficiency and market failure. Instead inter-group distributive considerations will be the dominant motivation for much, indeed probably most, regulation. Thus, it may be misconceived and irrelevant to criticize regulation as allocatively inefficient, given that this is often not its primary purpose.

The argument is often made that distributive ends should be taken care of through explicit transfers via the tax system or expenditure policies where payers or payees can be clearly identified and the justification for a transfer publicly evaluated, while markets are left to operate with only such minimum regulation as may be required to correct for market failure. However, it is not obvious that wealth transfers through tax or expenditure policies are subject to greater political accountability than transfers through regulation. The problem of figuring out the real incidence of tax and expenditure policies, compounded by the common phenomenon of a benefit that is given to one group in one context being "traded" by politicians against off-setting concessions to other groups in other contexts (i.e. apparently unrelated benefits may be politically interdependent), makes sorting out winners and losers from tax and expenditure policies as difficult a task as tracing out winners and losers from direct or delegated regulation. Moreover, it is naive to attempt to confine wealth transfers to explicit tax and expenditure policies. Almost every collective decision by government in any context has wealth effects, e.g., building a road, an airport, a power station, a park, raising or lowering interest rates, raising or lowering foreign exchange rates, proclaiming public holidays, exercising prosecutorial discretion in enforcing laws, geographically decentralizing government bureaucracy, and so on. The problem of public accountability for wealth effects produced by government action is acute, but wealth effects created by government regulation are only one part of this problem.

If the further objection to employing regulation (rather than, for example, taxes) for distributive ends is that it generates dead-weight social losses through frictions in the method of transfer, the short answer to this objection is that almost without exception some interest group advances its self-interest through these inefficiencies. To reiterate, no individual or interest group has any interest in allocative efficiency as a primary goal or even a secondary, or instrumental goal *except* to the extent that it maximizes the individual's or group's self-interest, which often such a goal will not. In other words, allocative efficiency is generally merely a *means* to the end of increasing an individual's or interest's share of the social product.

This analysis, then, leads us to characterize the process of regulation as an exercise in political brokerage among competing interests, each seeking to maximize its self-interest, usually by increasing its distributive share of society's resources at the expense of other interests. Competition among interest groups for desired collective goods might be thought of as an equilibra-

ting mechanism much like Adam Smith's invisible hand of competition in private markets for non-collective goods. Later parts of the paper will be largely devoted to developing some criteria for identifying "market failure" in political and regulatory markets and possible responses to it.

It is appropriate, however, at this point to introduce the semi-autonomous regulatory agency into the analysis. For several reasons, we would argue that the functioning of many regulatory agencies does not raise fundamentally different questions from any other form of political decision-making. First, with many agencies the entire policy-making or legislative function has been delegated by government to the regulators, and in this respect regulators perform the same roles as politicians. Several relatively typical examples of agency mandates illustrate this point. Section 3 of the *National Transportation Act*[26] provides: "It is hereby declared that an economic, efficient and adequate transportation system making the best use of all available modes of transportation at the lowest total costs is essential to protect the interest of the users of transportation and to maintain the economic well-being and growth of Canada." Bill C-33 presently before the Federal Parliament amends the objectives of the *National Transportation Act* as follows: "3(1) It is hereby declared that the objective of the transport policy for Canada is to achieve a transportation system that

a) is efficient
b) is an effective instrument of support for the achievement of national and regional social and economic objectives
c) provides accessibility and equity of treatment for users. . .".

The Federal Foreign Investment Review Agency,[27] in reviewing a foreign take-over, is required to consider a long statutory list of economic and social factors, in some cases contradictory, and not weighted at all in the Act.

The Ontario Highway Transport Board, operating under the Ontario *Highway Transport Board Act*, is empowered to issue certificates of "public necessity and convenience" as a pre-condition of entry into the for-hire trucking industry.[28]

The Ontario *Milk Act* provides:[29] "(2) The purpose and intent of this Act is to provide for the control and regulation in any or all respects of

a) the marketing in Ontario of milk, cream or cheese. . .
b) the quality of milk."[30]

[26]See National Transport Act (1970, c. N-17).

[27]See Foreign Investment Review Act (1973, c.46).

[28]For further details see Bonsor *infra.*

[29]*Ontario Milk Act* (1970, c.273).

[30]For further details see Broadwith *et al., infra.*

While the *functions* of the Ontario Milk Marketing Board are clear from the Act – essentially setting quotas – the *objectives* of this exercise are left by the legislature to the Board to evolve. The same is the case with the Ontario Racing Commission, which under s.3 of the *Racing Commission Act* [31] is empowered to "govern, direct, control and regulate horse racing in Ontario in any or all of its forms".

In all of these cases, the primary policy-making responsibility is left, at least in the first instance, to the agency. Regulators are transmuted into politicians, and analysis of the functioning of this form of public decision-making should not differ sharply from analysis of political decision-making at large. However, two important qualifications to this proposition need to be noted in comparing the incentive structures facing politicians and regulators. First, regulators are subject only to non-vote influence in their decisions and not (directly) to both vote and non-vote forms of influence as in the case of politicians. Secondly, a regulator's perspective involves only a partial social equilibrium analysis where only the competing interests surrounding the issues under regulation require reconciliation. Politicians, on the other hand, in formulating government policy and choosing policy instruments for its effectuation, engage in general social equilibrium analysis where policies are traded among the whole universe of interests in the society in an attempt to produce a general social equilibrium compatible with the political support maximization objective of politicians. The task of determining the distributive effects of particular forms of regulation is infinitely complicated because of this political interdependence between many forms of regulation. It also suggests that on occasion politicians may be more concerned than regulators to espouse policies designed to maximize the total value of the social product (efficiency-promoting policies) where these also enhance vote-maximization objectives, which they might plausibly do, if distributive ends are also promoted by having a larger social product to distribute.

Beyond the common fact of a wide delegation of policy-making powers, another reason why the functioning of many regulatory agencies cannot be usefully analyzed separately from political decision-making at large is that, even in relation to a single given policy objective, often a government has available to it a range of options among policy instruments for effectuating that policy: direct regulation, delegated regulation, tax and expenditure policies, executive decisions of various kinds, etc. (Doern, 1977). In many contexts, there will be a high rate of substitutability among these instruments. To focus exclusively on problems of institutional design with regulatory agencies ignores the fact that a restructuring of the functioning of an agency, to the extent that this produces outcomes different from those previously generated, will generate feedback effects into other areas of the

[31] *Racing Commission Act* (1970, c.398).

political process. Thus, interests unhappy with the new regulatory outcomes and politicians concerned perhaps with placating these interests or keeping the general political equilibrium in balance will be induced to substitute other policy instruments that are free of the factors that shape decisions in the regulatory process. For example, the *National Transportation Act*, under which the Canadian Transport Commission operates, if the amendments proposed in Bill C-33 are enacted, will provide both for *ex ante* Ministerial directives to the agency and *ex post* Cabinet review of agency decisions in certain cases. Neither the political processes involved in formulating a directive nor those involved in Cabinet review remotely resemble those obtaining in the agency, and if one believes that different decisional inputs produce different decisional outputs, different substantive outcomes are likely to flow from each of these three processes.

A limiting example of the polycentric nature of the problems of institutional design raised by regulatory agencies is agricultural marketing boards. These were set up with clear objectives in mind and institutional arrangements designed to complement those objectives. To talk about restructuring marketing board processes to provide for more vigorous competition among interests before or on the boards ignores the fact that by and large the boards are presently doing exactly what they were supposed to do, i.e., advancing producer interests at the expense of consumer interests. The institutional problem, if it was one, presumably rested with the insufficiently vigorous competition among affected interests in the political process prior to the creation of the boards.

The foregoing analysis is not intended to suggest that all regulatory agencies can be viewed in this political dimension. Obviously, agencies such as Workmen's Compensation Boards and Land Compensation Boards, where the necessary political brokering of public policy is already reflected in their detailed statutory mandates, and the application of those mandates involves relatively technical adjudications on relatively confined inter-party disputes, are most usefully modelled along judicial analogues, given that generally the only realistic substitute policy instrument for the administration of such statutes is the courts. Concepts of judicial due process are obviously, therefore, highly appropriate institutional reference points. This leaves only the question of whether, like marketing boards, there was sufficiently vigorous competition among affected interests in the formulation of the statutorily articulated policies which these agencies administer.

However, in the case of regulatory agencies exercising broad policy-making or legislative authority, for which other policy instruments exist as close substitutes, it is a central thesis of this paper that questions of institutional design and political accountability cannot usefully be examined separately from such issues across the whole spectrum of political decision-

making. Hence, concepts of political due process become much more important than formalistic concepts of judicial due process.

7. Market Failure in Markets for Regulation

A number of factors can be identified which seriously distort the functioning of competitive forces among interest groups in "markets" for regulation. These "markets" embrace both the initial legislative supply by politicians of a new regulatory regime and subsequent supply by regulators of regulatory outcomes under that regime once implemented.

7.1 INFORMATION COSTS, TRANSACTION COSTS & FREE RIDERS

Importantly, the factors that often cause private markets to fail, i.e. information costs, transaction costs, and free riders, often cause political and regulatory markets to fail – another reason why regulation tends not to be responsive to private market failure. This is not to say that this symmetry between market failure in the three markets will always prevail. For example, consumers may on occasion be able to organize politically around some "cathartic" issue and induce an effective political or regulatory response to a private market failure. Here the benefits of consumer coalition to induce a favourable collective response may outweigh the costs. Conversely, well-functioning private markets may be "blocked" by concentrated interests through political or regulatory action (e.g., tariff protection, marketing boards). Here, the costs of effective consumer coalition in the relevant political or regulatory market outweigh the benefits.

Obviously, for individuals to develop informed preferences on public policy issues, a threshold requirement is the acquisition of the requisite information. Information, however, is not costless and will be invested in only if the marginal returns to the investment exceed the marginal costs of acquisition and processing. Highly concentrated interests with substantial individual stakes in a policy outcome will generally find it more profitable to engage individually or collectively in the acquisition of relevant information than thinly spread interests who individually will generally find that the costs far outweigh the stakes and collectively face major transaction costs and free rider problems in aggregating resources to acquire the information.[32]

Having acquired and processed the requisite information, affected interests then face the transaction costs entailed in communicating to the policy makers their reactions to the information. Again, for thinly-spread

[32] Trebilcock (1975, 619).

interests, these costs, exacerbated by the free rider problem, are in general a much greater disincentive to participation in public decision-making than in the case of highly concentrated interests.

From these broad premises, Downs concludes that "government policy in a democracy almost always exhibits an anti-consumer, pro-producer bias."[33] While this may often be true, it is an incomplete view of the effect of information and transaction costs on the competitive strengths of different interests in the market for regulation. It is clear that, on ostensibly relatively straightforward issues where the hazards or benefits *seem* intuitively obvious and readily discernible, e.g., unsafe drugs and automobiles, contaminated food, rent controls, where the media can invest in acquiring and transmitting the information at low cost, where it can be acquired and processed by consumers also at low cost, public policies are responsive to consumer pressures. Not only are information costs to consumers low, but reaction costs are also often low, as politicians will tend to interpret the extent of media coverage of an issue (reflecting the media's judgment of concerns about the issue among its readers) as a form of derived demand for political action. On issues of this kind, the market distortions, if they exist, are likely to run against producer interests. For example, if the assessment of the costs and benefits of regulation in these contexts is more complex than appears on the surface (as is commonly the case), the production and consumption of this information will impose significant costs on the producer, the media (as information agents), and the consumer. Often, not all of these interests will find it economically worthwhile to incur such costs.

On the other hand, on other issues which are ostensibly not relatively straightforward, and the hazards or benefits to consumers do not seem intuitively obvious or readily discernible, e.g., tax, tariff, and competition policy, only highly concentrated interests will find it economically worthwhile to incur the substantial information and "reaction" (transaction) costs involved in attempting to influence public policy-making, and will be able to contain the free rider problem where they act collectively.

As we will argue much more fully in Part 9 of this paper, the distortions introduced into markets for regulation by information and transaction costs can be overcome only by direct and/or indirect public subsidization of these costs together with compensation for, or coercion of, free riders. We will assert that appropriate subsidization policies to facilitate interest group competition in markets for regulation generally (regulatory agency activity and political decision-making at large) are required, if all relevant interests are to be embraced by such markets and political "externalities" avoided. (Trebilcock, 1975).

However, several reservations to this analysis are required. First, future

[33] Downs (1957, 255-256).

interests who stand to be affected by negative externalities generated both by private markets and by public markets for regulation, e.g., the interest of unborn generations in aspects of the environment, cannot, in any readily conceivable way, be embraced by markets for regulation, or any re-ordering of them, and represent an insoluble form of "market" failure.

Secondly, while subsidization of information costs on the *demand* side will ensure an ability to acquire the requisite information about public policy issues, this will not necessarily ensure an optimal *supply* of such information. Bureaucrats, regulators, and politicians, all operating in non-explicit market settings, and often the best (least-cost) sources of information on current or pending political decisions, may well face incentive structures that discourage the production of that information, e.g., greater public accountability, which, like competition, nobody likes if he can avoid it. This strongly suggests the need for general freedom of access to information legislation which should be applicable obviously not only to regulatory agencies but to public decision-making at large so as to avoid the polycentric problems created by the substitutability of policy instruments adverted to earlier. This issue is, of course, of general relevance to all public decision-making, and we do not pursue it further in this paper.

Thirdly, one must frankly acknowledge that making adjustments of these kinds to the competitive *processes* in markets for regulation is not only a matter of process. To the extent that changing the decisional inputs will produce different substantive outputs from the decision-making process, changes of process themselves will produce distributive effects that will be favourable to some interests and unfavourable to others, and will be resisted or supported accordingly. Proposals for institutional change will therefore (probably rightly) be seen as carrying their own normative biases. Unfortunately, the interests who might stand to gain from a re-ordering along the lines proposed are precisely those interests who, in the absence of such changes, will often have no effective means of promoting them.

7.2 THE PROBLEM OF UNEQUAL ENDOWMENTS

Presumably, in terms of non-voter influence, interests with greater endowments will often be able to secure more favourable political "trades" than those interests less well-endowed, despite the fact that we have adopted an egalitarian philosophy in the distribution of voting endowments.

In analyzing the functioning of private markets, economics has traditionally taken existing forms of income and wealth distribution as given. One could quite plausibly adopt the same approach to markets for regulation (as our society has implicitly chosen to do). Without wishing to do more than raise a question, a major reason for tolerating inequalities in endowments in

private markets is the incentive effect such inequalities, or the prospect of them, have on social wealth creation, which, so conventional economic theory goes, makes most people better off. However, in markets for regulation where political or regulatory decisions are frequently concerned with distributive shares of a given stock of resources, this rationale would seem rarely available, because competition for regulation rarely in itself creates any new social wealth. Self-interested behaviour in competitive private markets will, albeit unintentionally, maximize the total value of the social product.[34] Self-interested behaviour in competitive political or regulatory markets will perform no such "by-product" function, and therefore existing incentive structures would seem more vulnerable to challenge. Issues such as equalizing the ability of interests to provide political contributions and support need more serious thought than they have hitherto received (Okun, 1975).

8. Some Implications for Issues of Institutional Design: Defining the Problem

Noll suggests (Noll, 1971) that proposals for reforming regulation have tended to focus on three fundamental issues:

1. *Administrative procedures* – how should the methods used by agencies in gathering information and making decisions be set up in order to guard against arbitrary and unfair decisions?
2. *The scope of regulation* – what private economic decisions ought to be subject to governmental review and control, and what performance objectives should regulation be striving for?
3. *The effectiveness of regulation* – how can regulatory authorities be made to do a better job in terms of both making good choices as to which specific private decisions to regulate and achieving the objective of protecting the public interest?

The first issue – that of ensuring that individual rights are not jeopardized by the improper exercise of administrative discretion – has drawn a fulsome response in many jurisdictions, none more so than Ontario. The Royal Commission Inquiry into Civil Rights (the McRuer Commission) undertook an elaborate examination of issues of due process and judicial review raised by the existence of statutory powers of discretion. (Report of the Royal Commission Inquiring into Civil Rights, 1968). Many of the Commission's recommendations were implemented by subsequent legislation.[35] Indeed, to the extent that concerns remain outstanding in this

[34] Smith (1937, 421-423).

[35] See *The Statutory Powers Procedure Act* (1971, c.47); *The Judicial Review Procedure Act* (1971, c.48); *The Civil Rights Statute Law Amendment Act* (1971, c.50).

context, they are that the McRuer reforms have over-judicialized the regulatory process and have imposed largely uniform, and unnecessarily constricting, procedural requirements on a large number of agencies performing widely disparate regulatory functions. Moreover, the reforms have been criticized as lacking any convincing empirical validation. In short, has it really been demonstrated that problems of due process in the exercise of administrative discretion are (or were) in fact a major evil in the regulatory process?[36] For example, the Ontario Economic Council's Survey of Agencies revealed that one license review board, set up in 1971, following McRuer, has never met, has no budget, and the chairman has never received or seen the Act under which the Board operates (despite requesting a copy from the relevant Minister). On the other hand, the Council's case-study on the Ontario Highway Transport Board found that the Board often gives no reasons for its decisions and does not report its decisions in any systematic or readily accessible fashion. Thus, problems both of procedural excesses and procedural shortcomings still require attention.

The second reform issue identified by Noll (the appropriate scope and role of regulation) has been addressed earlier in this paper. It suffices at this point to recall that both as a matter of theory and as a matter of observation, the role of regulation is not confined to promoting allocative efficiency by correcting for private market failure. In fact, most interest groups face powerful incentives to promote their own distributive ends by harnessing the support of the state in enacting beneficial forms of regulation. Whether regulation *should* be invoked for these purposes (as opposed to some other policy instrument, such as taxes), or whether the state *should* involve itself extensively in distributive issues at all are, for our purposes, mostly uninteresting questions. Our earlier analysis in this paper suggests that regulation is always likely to have a wide variety of policy objectives. We would not presume to argue that it is in any way illegitimate or inappropriate for the elected government of the day to espouse any regulatory objective that it wishes.

However, to acknowledge this is to throw into acute relief some of the problems implicit in Noll's third reform issue: the effectiveness of regulation. In order to measure the effectiveness of any regulatory regime, obviously one must first identify a relevant set of performance standards. These may, of course, be set out with complete precision in the legislation under which a regulatory agency operates, in which case the task of measuring performance against the declared objectives may well be relatively straightforward. However, observation suggests that, when a government chooses to appoint a semi-autonomous regulatory agency to administer a statute, commonly the performance standards will not be well-defined. Where a legislature has

[36] See Willis (1968, 351); Angus (1974, 177); Hogg (1974, 157); Mullan (1973, 14).

chosen to take the trouble to define its objectives with relative precision, e.g., the Federal *Income Tax Act*, administration of the statute is likely to remain a direct executive responsibility of government.

Despite the fact that critics of the regulatory process have persistently chastised governments for delegating wide-ranging policy-making, executive, and adjudicative responsibilities to regulatory agencies with no clear performance guidelines, (Lowi, 1969; Friendly, 1962), their injunctions have mostly gone unheeded. The explanations for this would not seem hard to find. For political reasons, governments often find delegation of responsibility to an agency attractive. For example, public pressure may demand governmental response to a problem that is either insoluble or at least not susceptible to any presently discovered solution. Given that doing nothing in the face of a publicly perceived problem is not a political option which a government is likely to feel open to it, the setting up of a regulatory agency to analyze and, less hopefully, redress the problem may be the most attractive political solution. Similarly, if the party in power perceives a problem and identifies solutions to it, but none of the solutions open is politically congenial, delegation of the task of making the painful decision to an "arms-length" agency may again be politically attractive. Yet, again, if the party in power confronts the possibility of a split in its ranks over a difficult policy decision, the only way of avoiding damaging disharmony may be to defer and delegate the decision. In all of these cases, it would not be politically rational for the government to commit itself to detailed policy prescriptions in the enabling legislation.[37]

Our agency paradigm thus acknowledges two facts of life that seem essentially unalterable: first, to the extent that the policy objectives of regulation are discernible from enabling statutes, they are likely to extend over an almost infinitely wide range of economic and social objectives and not be restricted to responding to market failure; second, these objectives are unlikely to be defined with any measure of precision in enabling legislation.

The problem of formulating meaningful performance standards for regulatory agencies, given these facts, will often be compounded by the fact that, even with weakly articulated regulatory objectives, some distributive ends may be clearly implied. This is obviously the case, for example, with agricultural marketing boards and rent control agencies, by their very nature, even though the distributive ends may not be explicitly acknowledged or traced out in the governing statutes. For example, despite the absence of clearly articulated policy objectives in the Ontario *Milk Act*, the Ontario Milk Marketing Board has declared that its "objective is to improve the

[37] See Davis (1969, Chapter 2). These observations would not hold in the case of the appointment of a specialized tribunal to adjudicate highly particular issues involving only one or two parties, where the principles to be applied are clear and non-controversial, but the facts may be complex, e.g., the Land Compensation Board, the Workmen's Compensation Board.

income of milk producers. . ."[38] Employing conservative assumptions, the author of a case-study on the Board in this volume estimates that this policy results in an annual transfer from consumers of fluid milk to producers thereof of $11 million, or an average income transfer of $1200 to each Ontario fluid milk producer. The author suggests that the distributive impact of the Board's policies may in fact be three times these figures.[39]

It is even arguable that, while agencies engaged in public utility (natural monopoly) regulation may as one purpose seek to replicate competitive market outcomes, as another purpose consciously (albeit contradictorily) sanction cross-subsidization of one user class by another (Posner, 1971).

The pervasiveness of regulation designed to promote distributive objectives, often at the expense of economic efficiency, is eloquently attested to by Lewis Engman, former Chairman of the U.S. Federal Trade Commission.[40] Engman estimates that, in the transportation field alone in the U.S., hidden regulatory subsidies to industry may cost consumers in excess of $16 billion a year ($80 per annum per man, woman and child in the U.S.). He states:

> From time to time, proposals have been made to provide direct cash subsidies in lieu of the patchwork of regulatory subsidies that now pervade our economy. Opponents rise indignantly to object that hardworking individuals and businesses do not want handouts. Well, a rose by any other name. . . . Our airlines, our truckers, our railroads, our electronics media and countless others are on the dole. We get irate about welfare fraud. But, our complex systems of hidden regulatory subsidies make welfare fraud look like petty larceny. ...

Analytically, the task of formulating meaningful performance standards in respect of agencies engaged in policy-making involving significant distributive objectives is formidable. The neo-classical economic framework of analysis is of limited value, and philosophy offers little immediate prospect of agreement on a substantive theory of distributive justice. (cf. Rawls, 1971; Nozick, 1974).

Recognition of the nature of regulatory decison-making has been slow in evolving, deflected until recently by a view that won wide currency during the New Deal in the U.S. that even uncharted delegations of policy-making authority to independent regulatory agencies implied few dangers to precepts of political accountability, because the policies in question were not *political.* With few dissenting voices, (cf. Lord Hewart, 1929 and Laski, 1930) major intellectual figures during the New Deal era in the U.S., such as

[38] See case study by Broadwith *et al.*

[39] *Op. cit.*

[40] Speech to the Fall Conference of the Financial Analysts Federation, Detroit, October 7, 1974. See also Posner (1975).

James Landis, Jerome Frank, William O. Douglas and Felix Frankfurter, (all lawyers) subscribed to the view that most major policy issues were susceptible of "right answers", if only enough *experts* were given enough time and enough resources to analyse them. Policy issues were thus conceived of as susceptible of objective resolution against a discoverable talisman of technical virtuosity. (Freedman, 1976, 363).

The most important shift in thinking about the nature of the regulatory process in recent years has been a realization that this simply is not so. Professor Jaffe puts the point bluntly as follows: ". . .the autonomy of 'expertness as an objective determinant of policy is, I am afraid, an illusion. Policy-making *is* politics".[41] On this view, the competence of experts in regulatory decision-making is confined to elucidating relevant facts, identifying costs and benefits of various policy options, and tracing out the impact on different interests or values of those options. But the ultimate policy choices will commonly involve choice, or compromise, among competing social interests or values, as to which technical experts have no special pre-eminence. (cf. Friedman, 1971; Myrdal, 1969).

This view of the regulatory process leads two commentators recently to argue a new conception of performance standards for regulatory agencies:[42]

> Regulatory agencies are deeply involved in the making of 'political' decisions in the highest sense of that term – choices between competing social and economic values and competing alternatives for government action – decisions delegated to them by politically accountable officials. Agencies exercise their decision-making powers with respect to questions that Congress and the President, based on the best expertise available, *could* properly address on their own. Regulatory 'failure', then, as we would define it, occurs when an agency has not done what elected officials would have done had they exercised the power conferred on them by virtue of their ultimate political responsibility. Agencies would be said to fail when they reach substantive policy decisions (including decisions not to act) that do not coincide with what the politically accountable branches of government would have done if they had possessed the time, the information, and the will to make such decisions.
>
> So long as agencies remain 'independent', this kind of regulatory failure is difficult to detect, because with rare exceptions there is no way of knowing what Congress and the President would have done. Nevertheless, this analysis suggests that agency success requires the creation of some mechanism allowing more frequent intervention in the regulatory process by politically accountable decision-makers.

[41] Jaffe (1956, 1068). See also Reich (1966, 1227); Stewart (1975, 1669); Bazelon (1977, 817); Tribe (1973, 617). For more speculative treatments of the question of controlling technology, see Illich (1976), and Ellul (1964).

[42] Cutler and Johnson (1975, 1395, 1399).

The argument for more effective political control over hitherto largely autonomous agencies is attracting increasing support from critics and observers of the regulatory process[43] and has recently begun to find tangible expression at the federal level in Canada in proposed amendments to the *National Transportation Act*[44] and the proposed *Telecommunications Act,*[45] providing for closer ministerial control (through a directive power) over the Canadian Transport Commission and the Canadian Radio-Television and Telecommunications Commission (Janisch) and in proposals to bring federal Crown Corporations under closer political control. (Government of Canada Proposals, 1977).

We would argue that, given the roles that regulation has been, and will be, asked to assume in our society, this trend, in principle, is both welcome and inevitable. Once we are compelled to recognize that regulatory agencies do not typically merely execute policies laid down by legislatures but formulate their own policies, and once we are prepared to recognize that this policy-formulation process is not merely a technocratic search for scientifically "right answers", we are forced to accept the necessity of direct and extensive political oversight. First, contractarian concepts of democratic government dictate that responsibility for all policy decisions of regulatory agencies rests ultimately with the elected representatives of the governed.[46] Secondly, in the absence of ultimate political accountability for regulatory decision-making, we have no clear conception of what goals it is likely that regulators will seek to maximize. Politicians are likely to seek to maximize political support (Downs, 1957) and to resolve distributive issues against this calculus. Unless the somewhat indeterminate incentive structure presently facing regulators is much more closely aligned with that facing politicians, we are likely to have no way of knowing how they are *weighting* the various interests distributionally affected by particular regulatory policies. In the absence of wide social agreement on a substantive theory of distributive justice, we are forced to a more procedurally-oriented concept of the "public interest", (Schubert, 1960) or distributive justice, (Nozick, 1974; Rothenberg, 1973) pursuant to which there can be at least some measure of general social agreement on the rules of the game by which distributive outcomes are determined, if not on particular outcomes themselves. To place ultimate responsibility and authority with electorally-accountable politicians, however attenuated their accountability in turn may often be, would

[43] See Wade (1965, 357); Dixon (1975, 1); Ribicoff (1976, 415); and The President's Advisory Council on Executive Organization (1971); Janisch (forthcoming); the Management Board of Cabinet, Ontario Government (1974).

[44] *Bill C-43,* 1977.

[45] *Bill C-43,* 1977.

[46] Cf. Stewart (1975, 1673).

appear to invoke as satisfactory an index of the "public interest" as we are likely to be able to devise under our system of government.

Arguing in the same direction as considerations of democratic theory is the necessity of coordinating regulatory policy in some coherent fashion from a unifying perspective. If one looks at sectors such as banking (broadly defined), energy, transportation, communications, housing, and agriculture, regulatory responsibility is diffused across an immensely broad range of agencies and different levels of government. Central coordination of policy formation in the regulated sectors has become a problem of critical magnitude. The dysfunctions produced by the fragmented regulatory regimes of the modern state increasingly threaten paralysis in responding effectively to rapidly changing social and economic conditions. As former U.S. Secretary of Labour, John T. Dunlop, recently stated:[47]

> Although the creation of a new specialized agency probably heightens effectiveness in one field, the danger is that a series of uncoordinated steps, each quite sensible in themselves, can set up a feedback of unanticipated consequences that is overwhelmingly negative.

We would therefore argue that the principal issue of institutional design in the regulatory process is the requirement of political accountability. We would assert that two concepts are central to this requirement:

a) assuming perfectly competitive markets for regulatory outcomes, accountability by agencies to the political process to ensure proper weighting of competing interests and values;
b) to the extent that these markets are not perfectly competitive, because of differential access induced by information costs, transaction costs, and free riders, "closing" these markets.

We turn now to sketch out some of the possible dimensions of these imperatives.

9. Dimensions of Political Accountability

A number of relationships between a regulatory agency and other elements in the political environment need to be explored: its relationship with the government of the day, with the legislature, with the courts, and with interest groups affected by its decisions. These relationships are not, of course, independent of one another. It should be recalled that governments and, through them, legislatures often find it in their interests to abdicate responsibility for a particular area of policy-making in favour of another body. The task of ensuring appropriate lines of political accountability is not

[47]U.S. Conference Board (1976, Volume XIII, 26) U.S. Conference Board Record.

as simple as would be implied by a characterization of regulatory agencies as hungrily straining for more policy-making independence against unremitting pressure from governments or legislatures to "interfere" in this process. Indeed, some critics would argue that in the past the problem has been that nobody – neither governments, legislatures, nor regulatory agencies – has for the most part been predisposed to undertake significant or explicit policy formation in the "hard" areas of policy-making often assigned to regulatory agencies.

9.1 THE GOVERNMENT

Firstly, we would argue that all regulatory agencies exercising delegated legislative authority should be subject to some *ex ante* and *ex post* control by the government of the day. Correlative with this prerogative of intervention would be assignment of more political responsibility for failure to intervene, in the event that circumstances are seen to call for it. Because so much of the analysis of the regulatory process has in the past been absorbed in the scope and mechanics of judicial review, we have a very poorly developed framework of thinking on how precisely these linkages might be structured. The suggestions that follow, therefore, are of necessity somewhat speculative.

Under the recent federal proposals pertaining to the C.T.C. and the C.R.T.C., ministerial directives, in the form of Orders-in-Council, can be issued to the agency, although not with specific reference to a particular matter before the agency.[48] These proposals are open to criticism in several respects. First, and most importantly, there is no provision for comment or consultation by industry, other interest groups, or the agency, before a directive takes effect. The process of directive-formulation is unilateral and invisible, in sharp contrast to direct legislation or delegated policy-making by an agency. Attempts to ensure publicly accountable decision-making at these levels are liable to be subverted by the substitution of a bureaucratic process which severely attenuates accountability. Some form of public notice of a proposed directive and a procedure for written comment on the public record seem minimum requirements before a directive becomes binding.[49] Moreover, the credibility of an agency's decision-making process is likely to be undermined if interests are induced to believe that they can be short-circuited, whenever inconvenient, by secret and perhaps well-couched entreaties to a minister.

[48] Few if any, Ontario regulatory agencies are presently subject to a formal *ex ante* directive power on matters of policy.

[49] Janisch, Cutler and Johnson (1975, 1414); Redford (1976, 543); Management Board of Cabinet, Ontario Government (1974, 39).

Our other criticism of the federal proposals on this point runs the other way. We are not convinced that a properly structured directive power, entailing full political accountability for its exercise, should be inapplicable to specific matters or cases with which an agency is seized. Given the pervasive "public interest" considerations raised by many regulatory cases (e.g., the recent Grey-Greyhound route allocation case before the Ontario Highway Transport Board), it is difficult to see why a right of *ex ante* intervention by directive should not be conferred. Clearly, we recognize no such limitation on *ex post* review. Indeed, in marked contrast to the U.S., in Canada *ex post* review by government, usually cabinet, of decisions of major agencies has been a commonplace, both federally and provincially, for many years.[50] Importantly, in this respect, the Canadian tradition of only limited independence of regulatory agencies from the political process is much closer to our institutional ideal than the American tradition of greater independence. Thus, we believe that *ex post* review should in principle be retained. However, much more structured visibility is required than at present, e.g., public notice of any decision to review, an invitation for written comments on the public record from affected interests on the decision under review, and written reasons for the final decision of the government.[51] Alternatively, vesting *ex post* review powers in a Standing Committee of the Legislature may provide stronger assurances of openness and accountability.

9.2 THE LEGISLATURE

Beyond *ex ante* and *ex post* intervention by government in agency decisions, the other obvious method of influencing regulatory decision-making is through the appointment process. The government, of course, has and should have the prerogative of making appointments to agencies, with most appointments at present taking effect at the pleasure of the Lieutenant-Governor. We would argue that consideration be given to two changes in existing procedures. First, in order to compel government to review appointments, they should entail a *maximum* term, be subject to termination at the pleasure of the Lieutenant-Governor within this term, and be renewable on the completion of the term. Secondly, and more importantly, we would argue that appointments to the boards of major agencies, and termination and renewal of appointments, should be subject to the approval of an appropriate Standing Committee of the Legislature. The policy-making func-

[50] Ontario Energy Board (1972, c.312); Ontario Municipal Board (1970); Ontario Telephone Service Commission (1970, c.457); Ontario Highway Transport Board (1970, c.316); Ontario Environmental Assessment Board (1975, c.69).

[51] See Bruff and Gellhorn (1977, 1369) and Stevens (1977, 6), with regard to the appeal to the Federal Cabinet from the C.R.T.C. decision in the Telesat case.

tions that major agencies are asked to perform involve a delegation of *legislative* authority, not merely executive authority, and the legislature has both a right and a responsibility to be involved in the appointment of its delegates.

We also envisage a reporting responsibility on the part of agencies to the legislature. A strong case can be made for requiring agency heads to appear personally before a legislative committee, say once a year (e.g., in debates on estimates), and to present an extensive formal report detailing all statutory policy objectives being pursued by an agency along with all active policy objectives or interpretations originating with the agency, setting out an "impact" statement evaluating agency activities during the previous year against these objectives, indicating impacts of policies on different interests (e.g., the direction and magnitude of implicit subsidies), indicating also forward planning in terms of the furtherance or development of policy objectives, and outlining any problems being encountered with existing policy mandates. Rational groupings of agencies should be placed under the review of particular committees so that an expansive overview of policy implementation is possible by a committee. Moreover, if legislative committees are to perform this oversight function effectively, they must be given a much stronger research and investigative capacity than has hitherto typically been the case. Affected interests should be invited to make submissions at the hearings, and the committees should report their evaluations to the legislature. Present reporting procedures for regulatory agencies in Ontario vary widely from agency to agency, appear generally to be unexacting in substance, and are weakly monitored and enforced in practice.

Again, by way of advancing our objective of institutionalizing and mandating a highly visible policy review process at the legislative level, the effectiveness of "sunset" laws requires evaluation. While proposals for "sunset" laws come with various permutations, essentially they entail placing a terminal date on an agency's life and enabling legislation, thus forcing legislative evaluation and intervention if the agency is to carry on in any form.[52]

The idea is not new. Former U.S. Supreme Court Justice William O. Douglas, when chairman of the U.S. Securities and Exchange Commission, proposed to President Roosevelt that every agency should be abolished within ten years of creation. According to Douglas, "Roosevelt would always roar with delight at that and of course never did anything about it."[53] Less draconian in form but somewhat similar in intent is the mandatory ten year review of the Canadian *Bank Act.*

The rationale for "sunset" laws is obviously to ensure that elected politi-

[52] Adams (1976, 511).

[53] Douglas (1974, 297) as quoted in Adams (1976, 520).

cians take some measure of responsibility for the policies and performance of agencies. An additional argument for periodic legislative review is that the interest group dynamics surrounding regulatory and legislative activity may well be different. Thinly-spread interests, such as consumer interests, may be able occasionally to organize themselves politically when the stakes appear high (formulation or review of entire legislative programmes) and costs of participation relatively limited, but be unable to participate effectively in day-to-day decision-making by an agency where the costs of participation are high and the stakes per case or issue relatively low as general policy issues become decomposed into a myriad of single instances. The problem of perversion of an initial regulatory purpose in subsequent regulatory activity seems a real one. The evolution of the U.S. Interstate Commerce Commission is the most frequently cited example. (Kolko, 1965; Kolko, 1963; Hughes, 1977). Thus, the hope is that mandated periodic legislative review will encourage the abandonment of obsolete forms of regulation and the revitalization and reshaping of regulatory regimes which have lost their way or which now ought to be responding to different needs.

9.3 THE COURTS

We have spoken so far of the relationship of regulatory agencies with the government and with the legislature. What of their relationship with the courts? We, along with other recent analysts of the administrative law aspects of the regulatory process, (Angus, 1974; Hogg, 1974; Willis, 1968; Mullan, 1973) conceive a very limited oversight role for the courts, at least in terms of our agency paradigm. Obviously requirements of due process and "natural justice" in the procedures of agencies should continue to be enforced, as should legal limits on an agency's jurisdiction to seize itself of issues wholly outside its mandate (the doctrine of *ultra vires*). But beyond this we doubt that the courts can properly be responsive to the central issue of institutional design that we have identified, that of political accountability and the issues of distributive justice that lie behind it. The indeterminate nature of the incentive structure facing judges suggests a definition of their role that minimizes the possibility of the substitution of their judgments on the merits of issues for those of ultimately politically accountable regulators. Because the regulatory process is generally not a technocratic process, the review process also generally cannot be technocratic. Even in the case of regulatory agencies performing limited technocratic decision-making in an adjudicative forum (e.g., Workmen's Compensation Board, Land Compensation Board) the courts lack any comparative advantage on the merits of issues. We would also be uneasy about any specialized review agency of a

court-type character for regulatory agencies for similar reasons.[54]

This leaves for discussion one of the most important dimensions of political accountability, that of interest group participation in the regulatory process.

9.4 THE INTEREST GROUPS

(i) *Representational Due Process: The Theoretical Premises*

It is important now to focus on a major myth relating to regulation, that most major forms of regulation are forced on unwilling producer groups by hostile non-producer groups, and Professor Stigler's countervailing theory that "as a rule, regulation is acquired by the industry and is designed and operated primarily for its benefit."[55]

The theoretical underpinnings of Stigler's view find their origin in a long intellectual tradition in both political and economic theories of government which conceive the role of government in contemporary pluralistic societies as principally performing the function of balancing the interests of competing interest groups, (Dahl, 1956; Bentley, 1967; Truman, 1951; Downs, 1957; Solo, 1974; Bartlett, 1973; Breton, 1974; Buchanan and Tulloch, 1962; Olson, 1965; Wilson, J.Q., 1963).

A specific implication of this view in a regulatory context is provided in the following statement by a senior U.S. regulator:[56]

> In the approximately 1000 cases that I presided over in almost ten years as an administrative law judge, the 'public interest' never meant anything of substance to me beyond the materially related interests of the parties that were before me. Among the parties, all represented by lawyers, were the principal motor carriers, all the class one rail carriers in the United States, and most of the 500 largest corporations.

A U.S. court in a recent decision, commenting critically on this conception of regulatory decision-making, likened it to "an umpire blandly calling balls and strikes for adversaries appearing before it."[57] In other words, the significance of a pluralistic theory of government in the regulatory context is that, if a particular interest group is not a party to the decentralized "bargaining" process that surrounds regulatory decision-making, its interests are likely to be ignored or at least heavily discounted.

[54] See The President's Advisory Council on Executive Organization (1971) and Ackerman *et al* (1974, c.10).

[55] See Stigler (1971, 3)

[56] See Pellerzi (1974, 177).

[57] *Op. cit.* p.50.

In relation to, for example, the consumer interest in regulatory decision-making, it is an observed fact that non-producer interests rarely participate seriously in this process. The explanation for this lies principally in the fact that the regulated industry has a highly concentrated stake in the regulatory outcome, while consumer interests are widely diffused across the myriad of goods and services typically consumed in a lifetime. For example, a telephone company or airline can rationally spend a great deal of money promoting a case for a $50 million rate increase, while an individual consumer facing the prospect of a few dollars a year increase in his phone or travel bills can rationally justify spending almost nothing, although the aggregate financial interests of consumers more or less approximate those of the regulated industry. Coalitions of consumers are also difficult to organize, partly because of the transaction costs involved in organizing large groups of people and more importantly because of the free rider problem, which permits non-contributors to share equally with contributors in the gains from interest group activity, thus discouraging group membership.[58] The consequence of these disabilities is that large, affected interest groups are systematically disenfranchised from participation in regulatory decision-making. The perceived lack of effective countervailing power in private markets that has often prompted the drive for regulation tends simply to be perpetuated in the regulatory process. As long as this is so, pervasive doubts will understandably persist about the integrity and even-handedness of the regulatory process.

Returning to Professor Stigler's theorem, we see that he is making two distinct points: first, that producer groups are likely to have disproportionate influence on government initially in obtaining anti-competitive forms of regulation from it; second, whether or not regulation has this characteristic, producer groups will subsequently have disproportionate influence on those charged with administering a regulatory regime.[59] Thus, at the levels of both legislative and regulatory decision-making, consumer and similar interests are likely to be undervalued through an absence of systematic and forceful articulation. It is important to emphasize here, in relation to the contention of inherent anti-consumer regulatory bias, that this view is grounded not on the assumption that regulators are anything less than high-

[58] See further, Trebilcock (1975, 620-627) for an enumeration of additional factors that accentuate this bias in decision-making. Also, see Noll (1971, 39-45).

[59] Both strands of the Stigler theorem need to be accepted with some caution. For example, while the first strand may explain the demand and supply of *anti-competitive* regulation, it does not explain how low-intensity groups such as environmentalists and consumers have been successful in imposing, e.g., environmental and product safety legislation and rent controls on often highly concentrated producer groups. And as Peltzman (1976, 211) has recently shown, the second strand incompletely captures the range of interests that regulators will find it rational to maximize. Importantly, there will be both institutional and personal incentives not to subordinate consumer interests completely to producer interests.

minded but rather on the fact that they tend to be exposed almost exclusively to the viewpoints, arguments, perspectives, concerns and data of the regulated industry and rarely to any countervailing views. If the problem were simply that some regulators are venal, corrupt, or incompetent, it would be easily solved merely by replacing them. But this is not, in general, the problem.

A critical dilemma is raised, however, in a further observation of Professor Stigler, after surveying the political disabilities of consumers as a widely diffused interest group:[60]

> We can't construct – and I know of no historical example of – a viable, continuing broad-based consumer political lobby.

It is this dictum that must be confounded if consumer and similar (e.g., environmental) interests are to become effective interest groups in governmental processes premised on theories of pluralism.

In relation to state sponsorship of countervailing interests in political and regulatory decision-making, not only do theories of pluralism dictate that thinly-spread, low-intensity groups like consumers be involved in the process if their interests are to be heeded, but the more pervasive virtues of promoting vigorous competition of *ideas* argues to the same end. John Stuart Mill, in his essay on Representative Government, written over a hundred years ago, rightly underscored the importance of this point in developing a concept of "government by antagonism" of ideas:[61]

> No community has ever long continued progressive but while a conflict was going on between the strongest power in the community and some rival power. . . . The great difficulty of democratic government has hitherto seemed to be, how to provide, in a democratic society, what circumstances have provided hitherto in all the societies which have maintained themselves ahead of others – a social support, a *point d'appui,* for individual resistance to the tendencies of the ruling power, a protection, a rallying point, for opinions and interests which the ascendant public opinion views with disfavour.

In the context of the regulated industries in Canada, the fact that many of the regulated industries are economic monopolies and many of the regulatory agencies are jurisdictional monopolies does not imply that an industry monopoly should extend to the right of participation in the regulatory process or that all wisdom on relevant policy issues should be regarded as jointly monopolized by the industry and the agency. Many years ago, the English economist Sir John Hicks said that "the best of all monopoly profits is a quiet life."[62] However, a quiet life for monopolists, public or private,

[60] See Stigler and Cohen (1971, 49).

[61] See Mill (1958, 116-117).

[62] See Hicks (1935, 8)

serves nobody else's interests. In the absence of state assistance, production of ideas, at least in the present context, is likely to be sub-optimal, given the uncompensated positive externalities that they frequently generate (another form of free rider problem). This is the conventional rationale for state support of basic research, (U.S. National Academy of Sciences, 1965, 136; Mansfield, 1975, 450-54). Given that there is likely to be no more critical scarcity in the future than in new and useful ideas about the scope and nature of government intervention in the economy, state support for the production of ideas in this area would seem a sound investment.

In addition, and importantly, a greater sense of public participation in collective decision-making, while a "soft variable" in a strictly economic calculus, may well enter a community's social welfare function in a quite significant way (Dewey, 1974, c. 11). This "process" value, like the social value often attached to the act of voting, should not be lightly dismissed in evaluating the costs and benefits of alternative institutional arrangements.

Thus, in summary, the theoretical case for state sponsorship of interest group representation in public decision-making involves the following elements: first, theories of pluralism as principally explaining the outcome of political processes; second, a recognition that thinly-spread groups such as consumers, cannot, unaided, rationally afford to participate extensively in those processes; third, a recognition that vigorous competition in ideas, in a modern and increasingly complex society where good ideas are always in short supply, is a virtue worth promoting in itself; and fourth, a "process" value attached by the community to enhanced public participation in collective decision-making.[63]

(ii) *"No Regulation Without Representation:" The Mechanics*

As an appreciation has evolved that most major regulatory agencies are not simply engaged in mechanistic applications of detailed legislative prescriptions or in a technocratic search for objectively valid scientific verities, interest group participation in the regulatory process has emerged as one of the central issues in debates over the reform of the regulatory process.

It should be made clear at once that we do not see the facilitation of interest group access to the regulatory process as a substitute for the formal political linkages discussed above. Even if we were to assume that all affected interests were regularly represented in the regulatory process, formal political linkages would be necessary in order to deal with the critical problem of *weighting* those interests, once they have been politically legitimized in the public decision-making process. Conversely, these linkages are not substitutes

[63] For general treatments of various aspects of the theory and functioning of voluntary associations, see Smith and Freedman (1972) and Manser and Cass (1976).

for interest-group participation in regulatory and political decision-making. The absence of this participation will bias the functioning of these political linkages in much the same way as it biases the functioning of the regulatory process.

The problem of under-representation of thinly-spread interests in the regulatory process, while now a matter of wide debate, has a long genesis. Early American experiments, particularly during the New Deal of the Thirties, when the regulatory ideal was central to programmes for economic reconstruction, tended to involve attaching consumer advisory committees or occasionally consumer counsel to certain major agencies. Most of these quite quickly melted away as lack of independence, lack of resources, and lack of definition of role reduced them to little more than window-dressing (Campbell, 1968; Leighton, 1973, 269).

More recently in the U.S., bills have been debated in Congress which would create a statutory Office of the Consumer Advocate to represent the consumer interest before federal regulatory agencies, (Trebilcock, 1972). In Canada, direct federal subsidies to major consumer groups, funding of interest groups in public inquiries such as the Berger and Lysyk Commission Inquiries into northern pipelines, and some agency funding of specific interventions through cost awards, have all been employed. (Trebilcock, 1975, 619; Trebilcock, forthcoming; Trebilcock, 1977, 101; Trebilcock, 1973).

The problems of public subsidization of representational efforts by thinly-spread interests in order to overcome transaction cost and free rider disabilities, are formidable. Institutionalized advocacy of the kind implicit in the proposed U.S. Office of the Consumer Advocate runs the danger of undue government influence on interest group advocacy, excessively monolithic conceptions of the interests represented, and highly attentuated or non-existent constituency accountability. Direct government subsidies to private groups court similar dangers. On the other hand, *ad hoc* costs awards by agencies involve the exercise of a difficult agency discretion, are too piecemeal to ensure stable interest group activity, and may generate inefficient interventions fashioned primarily to maximize the size of the costs award rather than the value of the representation.[64]

We advance for consideration an alternative proposal which seems to meet many of the difficulties raised by other proposals. Recognizing on the one hand that businesses, unlike consumers, are already permitted to deduct intervention and lobbying expenses from taxable income as a cost of doing business, (Bond, 1974, 96, 98) and recognizing further that political parties, facing organizational disabilities similar to those of other thinly-spread interest groups, already receive subsidies in recognition of this, we would

[64] For a detailed critique of pluralist approaches to reform of the regulatory process, see Stewart (1975).

argue that tax policy may provide the best vehicle for redressing the under-representation of certain interests in the regulatory and political decision-making processes. More specifically, we advance for consideration the suggestion that the tax credit now available for political contributions under the Canadian *Income Tax Act* (s.127(3)-(4.1)), and the Ontario *Income Tax Act,* s.5.6(b)4a)[65] be extended to contributions to other interest groups participating in regulatory or political decision-making. For example, under both Acts, 75% of contributions to political parties up to $100 constitute a tax credit. We would suggest for the sake of discussion that a tax credit be extended to 75% of contributions, up to say $20 per contributor (to ensure broadly-based support), to interest groups, other than political parties, participating in the regulatory or political decision-making processes. As in the provisions of the Canadian *Income Tax Act,* (s.149) dealing with deductions for charitable donations, 90% or some like percentage of an interest group's revenues would have to be expended on representational activities in order to preserve this special tax status for its membership.

This approach has a number of attractions. First, the tax credit, while properly requiring some personal contribution from interest group members, offsets, at least crudely, the transaction cost and free rider problems that otherwise discourage interest group representation. Second, by forcing groups to compete to attract and retain support (albeit subsidized), goals of constituency accountability are enhanced. Third, by avoiding direct institutional subsidization, both potentially treacherous political decisions and dangers of monolithic assumptions about the nature of interests are reduced. Fourth, by virtue of membership subsidization rather than institutional subsidization, representatives of interests will have an incentive to avoid extravagant, misdirected, or "nuisance" interventions and instead seek to maximize returns to their constituencies through cost-justified activities on their behalf. This will reduce the need for legislatures or agencies to formulate elaborate rules to constrain undisciplined interventions. Fifth, by extending to other representational interest groups present subsidization of contributions to political parties, we are belatedly acknowledging that much political decision-making is influenced not only by vote-support but also by various forms of non-vote support. By rendering access to these forms of influence more equal, we will have made a beginning on the task of "closing" the "markets" for regulation. (cf. Manser and Cass, 1976; Freeman, 1969, 369; Caplin and Timbie, 1975, 183).

[65] For a discussion of the Canadian provisions, see Pappin (1976, 298). For a discussion of the U.S. provisions, see Plattner (1974, 112).

10. Conclusion

The proposals and suggestions sketched out above may seem to constitute in sum an elaborate, constraining, and costly programme for restructuring the regulatory process. We contend that these are base-line costs of effective delegated regulation. If government is not prepared to face the costs of effective, delegated regulation, then it has two clear options: not to regulate at all or to regulate directly by detailed legislative prescription. Our proposals are designed to do nothing more than to ensure that the relative political "prices" of these three options are more frankly faced.

As to whether implementation of the kinds of proposals we have outlined would lead to more or less regulation, or more or less allocative efficiency, we cannot, as a matter of theory, predict with certainty. By more strongly enfranchising interests presently under-represented in the regulatory and political processes, some regulation that presently exists will be successfully repudiated. In other cases, markets not presently subject to regulation may in future attract regulation. For example, consumers may successfully promote the repeal of anti-competitive regulation, thus reducing regulation but also promote rent controls and more zoning laws, thus increasing regulation. Similarly, environmental interests, under our proposals may be able to promote successfully more environmental regulation. As a matter of impression, it is likely that we would tend to get less anti-competitive, protectionist regulation, as consumer interests become more effective, and more regulation addressing technological externalities, as environmental interests become more effective. In both cases, the tendency would be to greater allocative efficiency, although the direction of movement may not always be unambiguous (e.g., rent controls). There would clearly also be some important distributive shifts among interests. In addition, there would be an increase in transaction costs (a dead-weight social loss), as participation in collective decision-making increased. More speculatively, we would expect many distributional effects eventually to cancel each other out, as a more comprehensive range of interest groups is drawn into the process, leaving continuing, direct efficiency losses from regulation and indirect, dead-weight, social costs generated in the process itself. At some point, we would speculate that a new general political equilibrium might be arrived at where these various social costs are collectively perceived and an implicit social judgment made on a move to a Pareto superior state, perhaps through majoritarian acceptance of a new "constitutional" compact. (cf. Buchanan and Tulloch, 1962; Buchanan, 1975). However, until all markets for regulation are closed by internalizing all significantly affected interests, the existence of political externalities will reduce incentives to make this move.

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Telephone Act, R.S.O. 1970, c.457

The Ontario Milk Marketing Board: An Economic Analysis

Broadwith, Hughes and Associates

1. Introduction

The Ontario Milk Marketing Board (OMMB) is an industry regulating organization operating under the legislative authority of the *Ontario Milk Act.* The Board has 13 board members all of whom are dairy farmers. The Board has broad powers to regulate milk marketing in Ontario.

This economic analysis of the OMMB and its operations is wider in scope than an examination of simply the board itself. Related organizations and issues are touched upon; the operation of the OMMB is partially interwoven with the decisions and operations of other organizations, notably the Milk Commission of Ontario. Nevertheless, the OMMB itself forms the focus of this study in the context of its pre-eminent position in the Ontario dairy industry. The study concentrates on the fluid milk portion of the OMMB operations, as in this sector OMMB decisions are often fundamental to market behaviour and price.

In 1976 Ontario consumers spent close to half a billion dollars buying fluid milk, or about $50 for every man, woman and child in the province. Of that $50, about $30 represents the more than $250 million that milk producers (dairy farmers) received for fluid milk through the Ontario Milk Marketing Board. The Board wields considerable and potent influence over the supply and pricing of fluid milk, and thus, it has a significant impact on the welfare of Ontario fluid milk consumers.

Similarly, the OMMB is of major importance to the welfare of Ontario fluid producers. In 1976 more than 9,000 fluid milk producers received an average of about $25,000 in gross annual income from the OMMB for their fluid milk production. In addition, these producers received monies from the Board for the sale of milk used in the manufacture of other dairy products

(e.g. butter, cheese, skim milk powder). If producers who do not share in the fluid milk market and whose milk is used solely in manufactured products are included, then 15,000 Ontario dairy farmers shared over $540 million in milk sales through the OMMB, for the year ended October 31, 1976.

Given the obvious importance of the OMMB and its legislative umbrella to Ontario dairy farmers, it is readily understandable that these producers are quick to defend the OMMB and stand ready to mobilize all the political support they can muster in its defense should this seem necessary. They form a powerful vested interest that generally ensures their views are taken fully into account in the political decision-making process.

Public concern and debate over some of the important policy issues arising from the existence and operations of farm marketing boards in general and the OMMB in particular have been intermittent. Much of the debate that has taken place has been emotional rather than substantive. No doubt this is partly a result of the complexity of the issues involved. However, it would also appear that the apparent public indifference to the price of important foods reflects a reluctance by all but a few politicians to voice even the mildest of criticisms towards institutions, regulations and policies held in high esteem by major vested interests. It is this near void in public debate and understanding that this study attempts to address.

2. Background

In discussing the development of the current milk marketing system in Ontario, it is important first to define the broad context in which dairy policy is formulated.

The framework of recent and current dairy policy in Canada may be usefully divided into two sectors – fluid milk and manufacturing milk. Fluid milk is that sold to consumers in fresh, fluid form. Manufacturing milk is used to manufacture other dairy foods, for example butter, cheese, ice cream and skim milk powder. In many respects, this division between fluid and manufacturing milk policy is due to jurisdictional differences between levels of government. Provincial governments are almost totally responsible for both fluid milk marketing and policies that affect fluid milk prices. The policies for manufacturing milk are established largely under the auspices of the federal government, although much of the actual administration of manufacturing milk policies at the farm level is often carried out by individual provinces. This is the case in Ontario.[1]

[1] In some respects, the fluid and manufacturing portions of the dairy industry overlap. Almost all fluid milk producers also produce a quantity of manufacturing milk. Increasingly, the milk produced by both sectors of the industry is of identical quality. In Ontario, OMMB policies have resulted in gradual movement toward attainment of a share in the fluid market for all producers whose milk meets quality standards.

A. THE SITUATION BEFORE 1965

In 1963, the Ontario Government established the "Milk Industry Inquiry Committee", chaired by Professor S.G. Hennessey of the University of Toronto. The Committee was instructed "to inquire generally into all matters pertaining to the milk industry in Ontario". The Committee was asked to report its findings to the Minister of Agriculture, along with "such recommendations in respect of a plan of the marketing of milk as in the opinion of the Committee would be applicable to conditions in Ontario."[2] In 1965, the Committee delivered its report to the Minister of Agriculture. The *Milk Act* of 1965 embodied most of the Committee's recommendations.

The *Report of the Ontario Milk Industry Inquiry Committee* recorded considerable discontent with the milk marketing situation of Ontario in 1963 and 1964. Most of the discontent and many of the perceived problem areas emanated from dairy farmers and their direct concerns. Of course, some of the problems which were manifested at the primary producer level did have more widespread implications.

A major cause of producer discontent was the wide variance in the effective price to producers for milk of identical quality. Structural problems related to the legislation then in effect had allowed these problems to develop and grow worse. These problems related mainly (although not entirely) to an individual producer's share of the fluid milk market. This market was considerably more profitable than the manufacturing milk market. Many producers were excluded from what was seen as the "privilege" of the fluid market. Other producers saw their share of the fluid market fluctuate with the fortunes of the individual dairy processor to whom they sold their milk. Producers tended to be "tied" to particular dairies, in part because of a highly localized quota system. Inefficiencies resulted when producers shipped milk (usually fluid) to a plant that could utilize only part of the shipment; the balance of the shipment might be reshipped to another dairy, resulting in a reduction in the price the producer received for that milk, as he was often financially responsible for the additional transport charges.

Producer prices for fluid milk were established under the *de facto* control of the government-appointed Milk Industry Board, although an element of producer-processor negotiation was also involved. The price-setting process for manufacturing milk was subject to some variance, but federal government product support levels were a major factor.

An important manifestation of producer discontent with the then existing system was the chaotic and antagonistic state of relationships between

[2]Order-in-Council dated May 30, 1963, in *Report of the Milk Industry Inquiry Committee,* January, 1965 (Toronto) pp. 2-3

four major producer groups.[3] Despite strong encouragement from the government to patch up their differences and get together in a single marketing organization, the pull of perceived self-interest apparently prevented such unity.

The interests of consumers do not appear to have been in the forefront of any party's mind during the period leading up to passage of the *Milk Act* in 1965. Indeed, the Inquiry Committee expressed some surprise at the lack of consumer interest:

> The Committee was surprised at the slight interest displayed at its public hearings by consumers and consumer interest groups. Those who appeared confined themselves to mild generalities, with the exception of the Voice of Women who presented careful and authoritative comment concerning the dangers attendant upon radioactive fallout. There was no strong protest concerning any aspect of the dairy industry.[4]

There appears to have been little or no direct reference to consumer interest by either the Inquiry Committee or the Government in the period immediately preceding passage of the *Milk Act.* The thrust of concern was concentrated on the realization that producer organizations, after fifteen years of "partisan" behaviour, would simply not compromise, and that "constructive joint action will not be attained on a voluntary basis". There appears to have been a widely-accepted view that such "constructive joint action" was desirable. This perceived desirability appears to have totally negated any sentiments that may have favoured a more complete examination of *why* rather than *how* joint action should be instituted.

B. THE MILK ACT 1965

The *Milk Act* of 1965 represented the provincial government's response to the *Report of the Ontario Milk Industry Inquiry Committee.* The specifics of the *Milk Act* and the formation of the Milk Commission of Ontario and the Ontario Milk Marketing Board clearly indicate that the government effectively implemented the substance of the Inquiry Committee's recommendations. This legislation was passed with the support of all political parties.[5]

1. *The Milk Commission of Ontario*

The Milk Commission of Ontario is charged with overall responsibility

[3] The Ontario Cheese Producers' Marketing Board, the Ontario Cream Producers' Marketing Board, the Ontario Concentrated Milk Producers' Marketing Board and the Ontario Whole Milk Producers' League.

[4] op. cit. p. 194

[5] Taken from a paper by Lorne Hurd, General Manager OMMB, presented at the University of Guelph, February 1975.

for provincial regulation of the dairy industry. The nearly all-encompassing nature of the Commission's authority is indicated by the description in the *Milk Act* of the agency's objectives and jurisdiction. The objectives are "to control and regulate: (1) the marketing within Ontario of milk and milk products; (2) the quality of milk and milk products in Ontario". Jurisdiction "extends over all matters and to all persons involved with the producing, processing and marketing of milk or milk products".

The Commission is composed of a minimum of three members (recently there have been six), including a Chairman and Vice-Chairman. The members are appointed by the Lieutenant-Governor in Council and hold office at the pleasure of the Lieutenant-Governor in Council. Through its power to "hire and fire", the government has strong if indirect control of the Commission if it so chooses.

In practice, the Milk Commission has delegated its substantive powers over milk marketing to the Ontario Milk Marketing Board, and over cream marketing to the Ontario Cream Producers Marketing Board, although the Milk Commission has the power to terminate this delegation of power at any time. Moreover, the Lieutenant-Governor in Council may make regulations for the carrying out by the Commission or a trustee of any or all of the powers of a marketing board. Since the Milk Commission is government-appointed, the legislation effectively permits the government to remove marketing control from the OMMB and administer that control itself.

The Milk Commission effectively constitutes the supervisory body of the Ontario Milk Marketing Board. The Commission hears appeals of decisions made by the OMMB and may set aside any OMMB decision. The Board must file with the Commission minutes of meetings, by-laws, reports and financial statements.

The procedure for appealing an OMMB decision to the Milk Commission is straightforward. Any person who considers himself aggrieved by an order, direction or decision of the OMMB may appeal. A hearing (where evidence from both sides may be heard) must begin within thirty days after notice of appeal is given. The Commission must give its decision within ten days after a hearing is completed. The Commission's decision may be to dismiss the appeal, direct the OMMB to take such action as it is authorized to take, substitute a Commission opinion for that of the OMMB, or set aside the OMMB action being appealed.

In practice, appeals of OMMB pricing decisions are infrequent; and successful appeals of fluid milk pricing decisions are extremely infrequent![6]

[6] Appealed more often, and with greater success, are OMMB decisions with respect to individual producers' quotas and decisions regarding transportation charges. Manufacturing milk pricing decisions are sometimes appealed, occasionally successfully, but the portion of the price at issue in such appeals has been small and has reflected disagreement between the OMMB and processors as to the appropriate size of processing margins.

Informal consultations between the Commission and the OMMB clearly take place on a frequent basis. This means that the board is normally cognizant of Commission thinking and may well tend to restrict its decisions to those it believes the Commission will accept. It is unclear from an examination of this relationship whether the seeming harmony stems from OMMB acceptance of the views of its supervisory body, or the Milk Commission acquiesces to most decisions of what it recognizes as being a politically powerful body under its nominal jurisdiction or, indeed, whether it is some combination of these two.

The Commission has a number of powers and functions not delegated to the OMMB. These will not be detailed in any great depth, but some relate directly or indirectly to the OMMB. In particular, the Commission has broad powers of inquiry into any matter relating to the production, processing or marketing of milk or milk products. In carrying out such functions, the Commission has the powers of a commission under The *Public Inquiries Act*, 1971 (Ontario). An example of an inquiry by the Milk Commission was the one, initiated in early 1975 and completed in early 1977, examining wholesale and retail pricing practices. The inquiry was conducted following a request from the Minister of Agriculture, who was reacting to public concern over rising retail fluid milk prices. Interestingly, public concern was short-lived over the omission of farm gate prices (a major cause of the retail price increases) from the scope of the inquiry.

2. *The Ontario Milk Marketing Board*

The Ontario Milk Marketing Board has 12 board members elected by milk producers, plus one member appointed by the government as a representative of the Ontario Cream Producers Marketing Board. The 12 elected members serve four year terms and represent producers in each of 12 regions. The OMMB board members select their Chairman from among themselves. The OMMB is very much a dairy farmers' organization, financed and controlled by producers.

One individual stands out as having had a tremendous influence in the evolution of the scope of the OMMB, within the framework provided by the *Milk Act*. George McLaughlin was initially appointed to the Board by the government when the OMMB was set up in 1965, and became its first Chairman. He retired as Board member and Chairman in January 1977. His strong popularity amongst his fellow milk producers combined with the force of his personality gave him real leadership of the primary dairy industry in Ontario. The strength of his individual leadership was a major factor in winning acceptance among producers for a number of difficult decisions that producers had previously found impossible to make through lack of unity of purpose.

The jurisdiction of the Ontario Milk Marketing Board as delegated by the Milk Commission of Ontario under the *Milk Act*, extends over all matters and to all persons involved in the marketing of milk products. Specific functions carried out by the OMMB include the purchase from producers and the sale to processors of all milk produced in the province, and the establishment of the prices at which processors may purchase milk from the OMMB. The Board is authorized to pool returns among producers from the sale of milk to processors, and to provide for the marketing of milk on a quota basis – a quota system can apply both to producers and to processors.

The OMMB performs a number of functions associated with its economic regulation of the marketing of milk in Ontario. Funds to operate market promotion programs are deducted from producer cheques. The Board negotiates with truckers on behalf of producers in respect of transportation of milk from farm to processor. The Board administers the transportation of milk from farm to processor, including assigning the distribution of supplies amongst processors. The OMMB acts in some respects as an agent of the Canadian Dairy Commission by doing much of the farm-level administration of federal dairy policy.

The OMMB has an effective monopoly on the sale of raw milk in Ontario. The Board is the sole supplier of Ontario-produced milk to processors, and it has the power to set both price and supply.[7] These powers are very effective with respect to fluid milk, which is subject to an almost total embargo on external supply. No close substitutes exist. Thus, administered pricing decisions, rather than the interplay of supply and demand, are the major determinants of price, quantity and market behaviour for fluid milk in Ontario at the farm level.

The Board's powers are considerably less effective with respect to milk utilized in the manufacture of dairy products (butter, cheese, skim milk powder), as these may be readily shipped inter-provincially, thereby severely restricting the effectiveness of unilateral OMMB action in the manufacturing milk sector. The OMMB does establish the prices which processors must pay for manufacturing milk. However, these prices are largely determined by the federally-set support prices for butter and skim milk powder, which are joint products produced from the same milk. The OMMB has some impact in that it acts as a discriminating monopolist and sets the price of most milk for other manufacturing purposes at a somewhat higher level than the price of milk used for butter/powder manufacture. Also the OMMB – set price of milk used in butter/powder manufacture effectively determines the gross processor margin for the manufacture of these products, since the federal support prices largely determine the selling price of these products. The OMMB's "real" power in determining processor margins is restricted by the

[7]The Board does not have authority over milk which crosses provincial boundaries, i.e. milk which is produced but not consumed, or consumed but not produced, in Ontario.

fact that the federal government implicitly "recommends" a particular level of processor margin, and by the fact that OMMB pricing decisions may be appealed to the Milk Commission of Ontario. Thus, with respect to the manufacturing milk sector, OMMB administered economic regulation is largely restricted to merely passing through the substantial regulatory decisions made by the federal government.

It should be noted that the OMMB acts as a political lobby on behalf of milk producers and, thereby, attempts to influence decisions pertaining to federal policy on the dairy industry. In this regard, the degree of success or failure in carrying out its lobby function is not readily quantifiable.

3. Performance and Impact

This chapter analyzes the performance and impact of the Ontario Milk Marketing Board, mainly with respect to its fluid milk operations.

The OMMB administers and substantively controls the marketing of fluid milk in Ontario. It also administers the marketing of manufacturing milk in Ontario. However, prices and the quantity of production in the manufacturing milk sector are determined mainly by federal government actions. Substantive decision-making by the OMMB in this area is severely limited. As a result, this study does not deal in depth with the manufacturing milk sector.

In analyzing the impact of the OMMB, an attempt is made to utilize such quantitative empirical evidence as is available. Qualitative analysis is also employed. An essential caveat covering the quantitative analysis is that some figures must be considered approximate. They are used to illustrate the direction of particular impacts and to provide an approximate order of magnitude. Certain data used in the analysis involve assumptions; these should be clearly understood. Moreover, the long-term nature of the dairy industry, partly a result of biological constraints, such as the over 2 years required to raise a calf to milk-producing age, means that the impact of an effect being measured may reverberate through the system for a number of years, in a manner not precisely quantifiable. Furthermore, a market that is substantially controlled by administered pricing decisions may not readily lend itself to all of the assumptions integral to some forms of economic analysis. In particular, uncertainty that has an impact on producer decision-making may emanate from producer uncertainty concerning the expected formulation of administered decisions.

Producers may then make decisions on a basis that is quite different from the economic indications apparently confronting them. In the case of Ontario milk producers, such conditions of uncertainty are compounded by interaction between the fluid and manufacturing milk markets in combina-

tion with the fact that a federal agency has primary jurisdiction over one of these sectors, and a provincial agency has jurisdiction over the other.

In examining the performance and impact of the OMMB, it is useful to consider the board's operations in the context of the general objectives of marketing boards.

A. PRICE STABILITY

The OMMB record in attaining price stability for fluid milk at the farm level has been excellent. From January, 1967 through August, 1977, there have been a total of eleven changes in the producer price for fluid milk. This stability in farm-level prices has contributed to stability in prices throughout the marketing chain.

(This relationship is not direct, in that the OMMB has no control over fluid milk prices beyond the farm gate.) During the past decade, there have been two separate periods, of approximately two years each, when the farm level price for fluid milk has been held unchanged.

It is impossible to quantify the precise degree to which OMMB regulation has contributed to price stability. A comparative analysis of variance cannot be conducted, as no accurate estimate is possible of the amount of price variation that would have been recorded in the absence of OMMB regulation. Nevertheless, the supply and demand characteristics of the market for fluid milk (lagged supply response, inelastic demand) lead to the inescapable conclusion that an unregulated market would result in less price stability.

An unregulated market *could* mitigate price instability, if long-term contractual arrangements were made between producers and processors. However, it is highly unlikely that the degree of price stability thus attained would approach the stability actually recorded under OMMB regulation.

It is noted that, with a very few but often relatively large price changes, OMMB regulation has resulted in short periods (really points in time) when price variance has technically been large.

The benefits of the price stability which OMMB regulation has produced do not lend themselves to precise calculation. This is partly the result of a lack of knowledge of the precise degree of the improvement in price stability, and partly the result of the qualitative nature of many of the benefits. The reduction in uncertainty and the lowering of costs directly associated with price changes may constitute benefits to consumers, retailers, processors and producers. However, an assessment of the worth of these benefits in the main involves value judgement. This lack of precision concerning the value of price stability means that a comparison of the benefits and costs associated with measures that produce price stability is difficult to make. Appropriate pricing decisions are therefore not easily made.

B. SUPPLY STABILITY

The supply of fluid milk has been very stable under OMMB regulation. Consumers have been able to purchase any desired quantity of milk at prices that have been relatively stable. Largely as a result of the price stability, the quantities that consumers demand have shown relatively little fluctuation.

Again, it is impossible to quantify the degree of supply stability that has resulted from OMMB regulation, or the magnitude of the benefits derived.

C. PRODUCER NET INCOME STABILITY

OMMB regulation has undoubtedly contributed to a greater degree of producer net income stability than would have been the case without regulation. Prices and quantities have been relatively stable. Economic cycles, where price and supply vary in interaction with each other, necessarily lead to swings in producer net income. These cycles are largely eliminated under OMMB regulation, therefore eliminating a major source of producer net income variability.

Producer net incomes vary when production costs change in relation to prices received. The OMMB attempts to limit this variation through a pricing formula utilized as a guide in pricing decisions, which takes account of changes in the costs of producing fluid milk. The formula is outlined in Table 1.

Table 1: **OMMB Fluid Milk Pricing Formula**

Factor	Relative Weight
Farm Input Price Index	.20
Feed Price Index	.10
Average Weekly Earnings	.15
General Wholesale Price Index	.30
Fluid Milk Sales As % of Total Milk Sales	.25
	1.00

Source: Ontario Milk Marketing Board

The first two factors in Table 1 represent production costs; the farm input price index is a proxy for a wide range of production costs, and the feed price index is a proxy for feed costs. Average weekly earnings are included partly as a proxy for consumers' "ability to pay".[8] However, this economic indicator can be expected to move in a manner similar to labour costs, including the opportunity cost of producers' own labour. The general

[8]OMMB pamphlet "Pricing Milk at the Farm Level"

wholesale price index reflects "the economic conditions in which milk producers must operate".[9] However, it may also be expected to move in a manner that reflects corresponding movements in at least some production costs. Thus, the pricing formula is substantially weighted by factors that tend to represent costs of milk production.

The fifth factor in the formula, namely Ontario fluid milk sales as a percent of total Ontario milk sales (production), does not represent production costs. It is explained by the OMMB as a factor which relates demand to supply. In theory, if consumers demand more fluid milk, this factor will help trigger a price rise "needed to bring forth the supply".[10] Yet producers have always been willing (indeed prepared to pay for the privilege) to supply more milk at current fluid milk prices established under OMMB regulation. In effect, this factor may be influenced more by vacillations in federal government manufacturing milk policy that disrupt the manufacturing milk market (i.e. the difference between fluid milk sales and total milk sales) than by anything that may happen in the fluid milk market. Furthermore, the inclusion of this factor in a pricing formula means that the long-term trend towards lower per-capita consumption of manufactured dairy foods builds an upward bias into this formula component and, therefore, into the price the formula indicates. This bias would be even more significant but for the seemingly ever-increasing flow of federal subsidies to the manufacturing milk sector in Canada[11]. Without massive subsidization, the size of this industry would shrink still further.

The pricing formula is not used directly to establish fluid milk prices; rather it is used as a guide. Nonetheless, it is clear that both the nature of the formula, and the fact that OMMB Board members are producers themselves, ensures that changing production costs will be given full consideration when Board members make pricing decisions.

The virtual elimination of peaks and valleys associated with economic cycles, in the fluid milk market in Ontario, combined with a partly explicit, partly implicit consideration of production costs in fluid milk pricing decisions, means that OMMB regulation has made a major contribution towards stability in fluid milk producer net incomes in Ontario.

D. PRODUCER NET INCOME ADEQUACY

The Ontario Milk Marketing Board's regulation of fluid milk marketing in Ontario has resulted in a level of producer net income higher than that

[9] *Ibid.*

[10] *Ibid.*

[11] Indeed, the resultant relatively slow growth in this factor has tended to hold the formula to levels lower than those that would prevail were this factor excluded from the formula.

which would have prevailed in the absence of regulation. This improvement has been attained through the use of monopoly powers to raise prices above levels which would otherwise prevail.

Conclusive evidence that the OMMB has used its monopoly powers to enhance producer incomes is provided by the fact that fluid milk quotas in Ontario have consistently exhibited substantial value. Table 2 indicates the average quarterly level of fluid milk quota prices in Southern Ontario.[12]

In Ontario, fluid milk quotas entitle the holder to a share in the quantity of fluid milk sold within the area to which the quota applies (for example, Southern Ontario, a single area that encompasses the majority of Ontario's fluid milk production and consumption.) The extent to which an individual shares in the fluid milk market is directly related to the amount of quota he holds. Quotas are expressed in terms of pounds. A pound of quota entitles a producer to supply a pound of milk every day of the year to the "Group I Pool". That pool includes all the milk in an area (Southern Ontario) shipped by quota holders, within their quotas. All fluid milk sold to processors comes from this pool. Since aggregate quota holdings are larger than the quantities of fluid milk sold, the residual amount of milk left in the pool after fluid sales are satisfied is sold on the manufacturing milk market. Consequently, quota holders receive a blend price for their quota milk shipments, based on about four-fifths sold in the fluid market and one-fifth sold in the manufacturing milk market. These proportions vary monthly according to variations in the quantity of milk shipped within quota and variations in the quantity of milk sold in the fluid market. The establishment of Group I, or fluid quotas in aggregate quantities higher than the quantity of fluid milk sold, helps to ensure that there will always be sufficient fluid milk available to meet day to day variations in the quantity of fluid milk demanded. Quota holders are required to maintain a year-round minimum volume of fluid milk shipments approximately equal to the level of their quota holding. Failure to maintain quantity results in loss of quota. This helps to ensure maintenance of a sufficient volume of fluid milk shipments to meet demand even at times of the year when production costs are seasonally high. Manufacturing milk producers face quantity maintenance requirements only on an annual basis. Fluid milk producers are also required to meet higher health and sanitary standards than producers producing only manufacturing milk. The more stringent quantity maintenance and sanitary requirements which fluid milk producers are required to meet constitute additional costs in producing fluid milk in comparison with manufacturing milk.

[12] The situation in Northern Ontario has not been analyzed in similar depth. Marketing concepts and OMMB regulations are similar in Southern Ontario and in each of the relatively small, localized markets that constitute "Northern Ontario" under OMMB regulations. Consequently, although prices, quota values and some marketing conditions are different in the North from the South, similar market structure means that qualitative analytic conclusions that are valid with respect to Southern Ontario are also generally valid with respect to the situation in Northern Ontario.

Table 2: **Quota Prices, Net Producer Returns, Southern Ontario, 1968-1977**

Year/ Quarter	Price of Group I (fluid) Quota ($/lb)	Price of Market Share Quota (¢/lb)	Net Returns Group I Within Quota ($/cwt)	Net Returns Group II (manufac-turing) ($/cwt)	Difference In Net Returns Group I within Quota Minus Group II Bulk ($/cwt)
1968–1				4.40	
2	5.34		5.32	4.46	.86
3	6.28		5.43	4.46	.97
4	9.86		5.84	4.46	1.38
1969–1	12.30		5.83	4.46	1.37
2	14.09		5.81	4.35	1.46
3	15.83		5.84	4.35	1.49
4	15.48		5.88	4.35	1.53
1970–1	19.65		5.86	4.35	1.51
2	21.28		5.93	4.42	1.51
3	20.43		5.80	4.42	1.39
4	22.54		5.90	4.44	1.45
1971–1	26.47	.82	5.98	4.62	1.36
2	24.21	1.20	6.03	4.85	1.17
3	23.95	.93	6.12	5.20	.92
4	21.53	.85	6.31	5.53	.78
1972–1	19.25	.73	6.27	5.31	.96
2	17.50	.76	6.28	5.40	.87
3	16.29	.85	6.25	5.40	.85
4	14.65	.82	6.26	5.42	.84
1973–1	15.61	.76	6.60	5.40	1.20
2	16.19	.80	7.04	6.05	.99
3	14.55	.88	7.08	6.57	.51
4	10.25	.86	8.25	6.98	1.27
1974–1	9.63	.79	8.20	7.27	.93
2	7.39	.00	9.38	8.11	1.27
3	5.36	.00	9.58	8.72	.86
4	3.75	.00	9.88	8.92	.96
1975–1	4.25	.00	10.00	9.31	.69
2	6.35	.00	11.08	9.89	1.19
3	8.01	.00	11.03	9.62	1.41
4	12.29	.00	10.95	9.04	1.91
1976–1	18.37	.00	10.88	8.76	2.12
2	16.00	2.00	11.01	9.55	1.46
3	16.00	2.00	11.00	9.62	1.38
4	16.00	1.00	11.02	9.67	1.35
1977–1	16.00	1.00	10.97	9.65	1.33
2	16.00	2.81	11.52	10.13	1.39
3*	16.00	2.95	11.45	10.15	1.30

*Two months only.

Source: Ontario Milk Marketing Board

Of these, the quantity maintenance requirement is probably the more significant.

The fact that fluid milk quotas trade at a substantial price indicates that individuals are prepared to pay that price for the right to produce and sell fluid milk at the price prevailing for Group I pool within-quota shipments. That means that individuals feel they can pay their production costs, including whatever return they require for their labour, management and investment, and pay at least the interest cost on the monies paid to purchase the quota. Usually, a producer will also include some allowance for risk and uncertainty, and perhaps some amortization of the capital value of the quota, as amounts that the price he receives for the within-quota shipments must return to him above all of his other production costs. The aggregate amount of all of these costs forms an upper limit to the amount a producer or prospective producer[13] can afford to pay for fluid quota.

In the short run, a producer may need to cover only his short-run marginal cost of producing a pound of milk, plus costs associated with buying quota, in order to justify the purchase of a pound of quota. This will be the case where a producer has unused capacity, the expense of which he must meet whether or not he produces the pound of milk. This will normally happen only in an operation already producing milk. Moreover, this is a situation that cannot exist indefinitely on an industry-wide basis. If enough individuals are in such a situation, then they will bid the price of quota above the level that can be afforded by an individual who must cover all his costs, such as an individual wanting to build a new dairy barn, purchase new machinery and equipment, and then produce fluid milk. This individual can be expected to cancel his building plans until he can afford the quota, that is until the market price of quota is no longer determined by the existence of unused capacity. In Ontario, considerable new building has taken place in the fluid milk industry in the past decade. Therefore, the level of quota values that has generally prevailed cannot be considered a function of unused capacity, which can have been at most a short-term influence on quota prices.

Obtaining fluid milk quota constitutes a significant part of the amount of money an individual must invest in order to enter the fluid milk industry in Ontario. A 60-cow herd (larger than the Ontario average but a fairly normal size) might have a daily quota of about 2000 pounds. At even the artificially low $16 price the OMMB has established for quota, this represents an investment of $32,000. In other words, an Ontario producer's investment in fluid milk quota may be of an order of magnitude similar to his investment in cows. This situation is not unique to Ontario. In British Columbia, a 2000 pound fluid milk quota was recently worth over $200,000.

[13] New entrants are not excluded from the Ontario fluid milk market, if they purchase quota.

The manufacturing milk market at times has a significant influence on fluid milk quota prices. If the federal government establishes effective manufacturing milk prices at a level that more than covers production costs, and if free entry to that market is allowed, then the manufacturing milk price forms an opportunity cost for individuals contemplating the purchase of (perhaps additional) entry rights (quotas) to the fluid milk market. In the extreme, if manufacturing milk and fluid milk prices were identical and entry to the manufacturing milk market was unlimited, fluid quotas should in theory be valueless, as they would entail no privilege not available 'for free' in the manufacturing sector. (This situation could be mitigated by producer price expectations, for example, if a higher fluid milk price was expected in the future). At times, notably in the 1974-75 period, entry to the manufacturing milk market has been free, at prices sometimes well above production costs. This is evidenced by the close to twenty percent rise in Canadian manufacturing milk shipments during 1975-76, and the subsequent government action to halt free entry. The existence of opportunity to enter the manufacturing milk market can thus limit fluid quota prices to a level that reflects only part of the difference between production costs and the price received for fluid milk shipments.

In principle, fluid milk quota values can be expected to reflect the price received for fluid milk shipments (Group I within quota shipments) less the higher of production costs or the opportunity cost provided by an opportunity to sell milk at the manufacturing milk price. Table 2 compares fluid milk quota prices with these price influencing factors. For clarity of presentation, the prices received by producers for fluid milk shipments (Group I within quota) and for manufacturing milk shipments (Group II) are expressed on a net basis. Relevant licence fees, transportation charges, levies, holdbacks and subsidies have been applied to "posted" prices.

The price of market share quota (MSQ), presented in Table 2, reflects at least part of the difference between the manufacturing milk price and production costs, if entry is restricted. When entry is free, the price naturally drops to zero. (Market share quota permits an individual to market an annual quantity of milk, while fluid milk quota is on a daily basis. That difference partly accounts for the much lower level of market share quota prices.) In many periods, entry is neither totally free nor totally restricted; MSQ prices often reflect this, as well as uncertainty emanating from the "Stop and Go" nature of federal dairy policy.

Fluid milk quota prices have been limited to $16.00 per pound by the OMMB since April 1976.[14] The OMMB is now the sole buyer of quota from producers and the sole seller of quota to producers,[15] all at the $16.00 per

[14] Elaboration of this issue is included later in this paper.

[15] Unless an individual buys a farm and quota together.

pound price. As more people wish to buy quota than sell it at $16.00, the OMMB must ration the supply. Clearly the market price of quota has been consistently higher than $16.00 through 1976 and to date in 1977.

It would appear conservative to regard $16.00 as the current long-term price for fluid milk quota. Except for the 1974-75 period, when the manufacturing milk market was a major factor, there have been few periods in the 1970's when quota prices have averaged below $16.00. Moreover, a strong argument can be made that the simple fact that the $16 price has been so clearly below the real market value every month since early 1976, in itself proves that the long-run value of quota is *at least* $16.00 per pound.

Assuming a minimum value for fluid quota, one can calculate the minimum amount of the "income stream" it represents, i.e. a minimum estimate of the difference between the price received by farmers for Group I within quota milk, and the cost of producing that milk. To be quite certain that analytic assumptions concerning risk, uncertainty and a probable rate of amortization of purchased quota do not lend an upward bias to the estimation of the income stream, this analysis will take the highly conservative approach of ignoring these factors and treating the resultant estimate as not an approximate average, but rather a minimum bound. Morever, the analysis will again take a conservative approach in calculating only a 10 percent annual interest charge as the sole cost to a producer buying quota.[16] Thus, the assumptions are that the quota value is $16.00 per pound and the interest rate is 10% annually.

The annual interest cost to service a purchase of a pound of quota is $1.60. ($16.00 x 10%). On a daily basis, the interest cost is $.0044. ($1.60 divided by 365 days). There are 2.58 pounds of fluid milk in a quart. On a quart basis, therefore, the interest cost is 1.13 cents per quart.

[16] It is at least theoretically possible that part of the price of quotas reflects an expectation of future increases in the size of the "income stream", above costs, to which quotaholders are entitled. If this were the case, a prospective quota buyer could pay a higher price than the *current* income stream would justify, expecting to recoup any such deficiency through a higher, *subsequent* income stream (or alternatively through a higher quota resale price that reflects the higher income stream). It is assumed that this theoretical possibility is of little practical consequence in the current OMMB setting, because past performance of quota values provides little rationale for well-founded expectations of continually rising quota prices. Any perceived risks that the income stream could decline or that a similar quantity-unrestricted income stream could exist (albeit temporarily) in the manufacturing milk sector would exert offsetting downward influences on quota prices. The present value of a future *potential* (as opposed to actual) income stream can be expected to be discounted heavily by farmers who must meet interest payments from only the current income stream (unless they borrow further to meet interest payments, a proposition likely to be viewed as uncomfortable by both farmers and their bankers). And sales restrictions (such as at present) may prevent any increase in the price of quotas.

Even if part of the current value of quotas represents a *future* as well as a *current* income stream, the average income stream over time must still be sufficiently large to cover the costs of acquiring and holding the quota. If the current income stream is lower than the required average income stream that establishes current quota prices, then the future income stream must be expected to be larger than the average income stream by an amount that offsets the deficiency between the current and average streams, plus interest and carrying costs associated with the deficiency.

This interest cost represents a highly conservative minimum estimate of the "income stream" which producers indicate by their actions represents the difference between the price they receive for within-quota Group I shipments, and the total cost of producing that milk, including what farmers, through their aggregate action in establishing quota prices, view as an adequate, competitive return for their labour, management and investment.

This analysis shows that the price of Group I within quota shipments could be decreased by *at least* 1.13 cents per quart before quota values would be eliminated, and before problems would arise with respect to meeting the demand for fluid milk.

The Group I within-quota pool is comprised of only four-fifths fluid milk. OMMB actions in setting fluid milk prices have little direct impact on manufacturing milk prices. Therefore, the potential 1.13 cents per quart possible reduction in the Group I within-quota pool price could come entirely from a larger drop in the OMMB-set producer price for fluid milk. To be once again conservative, the assumption is made that the Group I within-quota pool is comprised of 85% fluid milk sales. (It has reached this level for only one individual month in the past two years and has recently been below 80%). The possible decline in the fluid price would be 1.33 cents per quart (1.13 divided by 85 percent).

It is again stressed that this 1.33 cent estimate is a minimum price, based on highly conservative analysis at each step. This figure may be said to represent the minimum bound of the distributive effect of OMMB regulation of fluid milk marketing. Consumers are in effect paying at least 1.33 cents per quart to fluid milk producers for the purpose of improving the adequacy of producers' incomes. This represents an additional cost to consumers and additional profit to either current producers or the producers from whom they purchased quotas (in this sense shares in a monopoly). This transfer of money from fluid milk consumers is not part of the cost of actually producing milk. It represents monopoly rents paid by consumers to the people (dairy farmers) who were given the monopoly.

To put these figures in another context, it is interesting to draw certain comparisons. The mid-1977 producer price for fluid milk was about 32.5 cents per quart. The income transfer from consumers represented at least 4 percent of that price. In terms of annual 1976 Ontario fluid milk sales, 1.33 cents per quart represents over $11 million. Divided among the more than 9,000 fluid milk producers in Ontario, this represents, at a minimum, an average income transfer from Ontario consumers of $1200 to each Ontario fluid milk producer.

In considering the implications of this analysis, it is important to reiterate the highly conservative nature of the assumption and the consequence that the analysis produced an indication of only the minimum bound of the distributive effect of OMMB fluid milk regulation. It is entirely possible,

although *not proven,* that the total distributive impact could be three times the figure calculated.[17]

The existence of a quota system and artificially high fluid milk prices may be intended to enhance current milk producers' net incomes. It may be only partially successful in this regard, in that the benefits of the future "income stream" tend to become capitalized in quota prices (or, if restrictions are placed on quota prices, hidden in the price of other assets). An individual buying a fluid quota is paying the seller at least part of the future monopoly profits that the quota rights provide. The new producer will not have his net income enhanced unless the price of milk is subsequently raised to yield an additional increment of monopoly profit.

The OMMB's exercise of monopoly powers to maintain artificially high prices, as documented above, is far from unique amongst agricultural marketing boards in Canada. The dairy, poultry and egg industries in most parts of Canada are subject to the exercise of regulation that produces a similar effect, although the magnitude of the effect varies. Ontario fluid milk prices at the producer level do not appear substantially higher than fluid milk prices elsewhere in Canada. Indeed, at September 1, 1977 only one province, Saskatchewan, had a producer fluid milk price lower than that recorded in Southern Ontario. Substantially higher fluid milk prices exist in British Columbia in comparison with Ontario, along with substantially higher fluid milk quota prices. This indicates that the effect of regulation in maintaining artificially high fluid milk prices is much smaller in Ontario than in B.C.

The foregoing analysis of quota values as a means of arriving at the distributive impact of OMMB fluid milk operations is a considerably more reliable approach (despite the limitation of proving only a lower bound) than an approach that involves an estimate of production costs subtracted from prices received. Actual costs of production cannot be accurately determined from direct estimation, since such estimates depend crucially on arbitrary value judgements of a reasonable return to such factors as labour, management, risk and investment costs.

Nevertheless, a comparison of rates of change in major production costs with rates of change in administered prices may have some relevance. Such comparisons must be subject to the *caveat* that they provide, at best, only a rough indicator of direction. Should prices increase substantially faster or slower than major costs, it may indicate improvement or declines in pro-

[17] An individual might well find that he could not borrow money to buy quota at as low a rate of interest as 10%. Moreover, he may well feel that in consideration of the risks and uncertainty involved (the monopoly price increment is not guaranteed in perpetuity; the Milk Commission of Ontario could insist that the price of milk reflect only production costs, or the government could decide current quotas should be abolished; intermediate changes could be made to the current situation), he should buy quota only if he can "pay off" or amortize a loan over three or four years. Indeed, some chartered banks base such loans on this expectation. This would imply a "discount rate" of 30%, and a tripling of the calculated distributive impact.

ducer net income. Table 3 suggests that from 1970 to 1977 there has not been a major shift in the relationship between fluid milk prices and an index of producer costs. The producer cost index in Table 3 is based on the Returns Adjustment Formula to which the federal government, until recently indexed the target return price for manufacturing milk.

Table 3: **Fluid Milk Price, Absolute and Index (Ontario) and Production Cost Index (Eastern Canada), 1970 to 1977**

Year/ Quarter	Fluid Milk Price Southern Ontario $/cwt	Indexed Fluid Milk Price 1970-72=100.0	Index of Dairy Farm Costs Including Producer Labour 1970-72=100.0
1970–1	6.65	96.8	96.1
2	6.65	96.8	97.0
3	6.65	96.8	97.3
4	6.65	96.8	97.8
1971–1	6.78	98.8	99.4
2	6.85	99.8	99.8
3	6.92	100.7	100.3
4	7.05	102.7	99.9
1972–1	7.05	102.7	101.3
2	7.05	102.7	102.3
3	7.05	102.7	103.6
4	7.05	102.7	105.2
1973–1	7.40	107.8	110.2
2	7.90	115.0	115.4
3	7.90	115.0	124.6
4	9.13	133.0	127.2
1974–1	9.13	133.0	135.3
2	10.23	149.0	139.0
3	10.45	152.2	144.8
4	10.75	156.6	150.6
1975–1	10.85	158.0	152.0
2	12.01	174.9	153.4
3	12.01	174.9	155.4
4	12.01	174.9	157.1
1976–1	12.01	174.9	159.0
2	12.01	174.9	160.4
3	12.01	174.9	162.3
4	12.01	174.9	163.6
1977–1	12.01	174.9	167.6
2	12.61	183.6	172.9

Sources: Ontario Milk Marketing Board, Statistics Canada, Canadian Dairy Commission.

E. ENSURE SUPPLY

Ontario Milk Marketing Board regulation of fluid milk marketing has resulted in ample supplies of milk to meet demand. Indeed, substantial quantities of milk meet fluid milk health standards but are actually sold to be used in the manufacture of other dairy foods.

F. ENSURE QUALITY

The quality of fluid milk in Ontario, in terms of health and sanitation standards, appears excellent in relation to other major milk-producing areas in the world. This situation is not entirely the result of OMMB regulation, as direct governmental regulation is probably the most significant factor in maintaining quality standards.

From a nutritional standpoint, the OMMB is examining ways in which fluid milk can be differentially priced such that producers have an incentive to raise the content in milk of important non-fat nutrients. Current differential pricing is applied only to the percentage fat content in milk. "Solids non-fat" differential pricing is technically difficult to institute. The OMMB may well be the most progressive provincial fluid milk marketing agency in Canada in terms of devoting resources to tackling these problems.

G. CONSUMER PRICE MINIMIZATION

In many respects this objective is the reverse of the "producer net income adequacy" objective. As outlined previously, OMMB regulation is maintaining a transfer of income from consumers to producers by setting the fluid milk price higher than competitive market forces indicate is necessary to supply the product.

This distributional effect aside, OMMB regulation, by maintaining a stable year-round price and supply, prevents any seasonal adjustment of price and supply according to variation in the seasonal cost of producing milk. This results in more fluid milk being consumed during periods when it is more expensive to produce and lower consumption during low-cost production periods than would theoretically be the case in competitive market circumstances. However, the inelastic demand for fluid milk means that such seasonal fluctuations would affect price much more than quantity. The net effect is that this stabilizing effect of OMMB regulation will result in a (probably very marginally) higher level of average fluid milk prices than would be the case in the absence of OMMB regulation. This cost in some sense represents the price consumers pay for a degree of price and supply stability.

H. PRODUCT PROMOTION

The OMMB collects a promotional levy from producers for each hundredweight of milk sold. The current size of that levy is 8 cents per hundredweight for milk shipments by producers who hold fluid quota, and 3.5 cents per hundredweight for shipments by producers who do not share in the fluid market. Table 4 provides a summary of the allocation of promotional funds since 1967. The clear thrust is towards promoting greater sales of fluid milk in the province of Ontario.

Table 4: **Promotion Funds Expended by the Ontario Milk Marketing Board, 1967 to 1976**

	National		Provincial		Milk Foundation
Fiscal Years Ended October 31:	GR I (fluid)	GR II (industrial)	GR I (fluid)	GR II (industrial)	(fluid)
1967	$241,107	$213,137	$ 478,583	0	
1968	253,920	209,867	546,278	21,102	88,102
1969	344,535	244,069	1,077,835	270,229	133,398
1970	428,567	241,002	1,135,908	240,252	141,208
1971	453,141	196,634	1,201,562	195,697	149,314
1972	490,659	196,966	1,362,964	196,886	107,667
1973	490,851	172,892	1,463,496	172,893	
1974	521,425	148,478	1,554,551	148,478	
1975	122,448	26,832	1,657,201	156,848	
1976	0	288,699	2,436,118	148,789	
10-year totals	2,855,802	1,741,610	12,914,496	1,551,174	619,689

This paper will not address the question of the effectiveness of OMMB promotional expenditures. It is noted that OMMB promotional expenditures are quite modest in relation to the value of the product sold. The OMMB is often viewed as an enlightened, efficient body in its approach to advertising, particularly when its performance is compared with the comparatively parsimonious outlook to advertising expenditures that often prevails in farm marketing organizations.

I. REDUCE PAST-FARM-GATE MARKETING MARGINS

The OMMB has very little direct impact on marketing margins at the fluid milk processing and retailing levels, since it has no control over selling prices at these levels.

The OMMB does support research pertaining to the dairy industry beyond the farm gate. This support includes expenditures in support of research at the University of Guelph, with the subject matter of the research largely at the University's discretion.

With respect to the transportation of milk from farm to processing plant, the OMMB has a major 'quasi-regulatory' function. The OMMB pays transporters to haul milk from farm to plant and then reimburses itself through deductions from producers' milk receipts.

Bulk milk transporters are paid for their services according to a rate which results from applying a formula to their individual operations.[18] Nearly all milk is now transported in bulk rather than in cans. The bulk milk rate formula, based mainly on costs, was approved jointly by the Board and transporter representatives in 1970, with provision for adjustment as conditions change.[19]

The Board appears to work effectively in holding transportation charges to a minimum rate consistent with the level of service judged necessary. It is clearly in producers' interests that the Board operates in such a manner, as higher transport costs mean lower (short term, at least) net returns to producers. Table 5 shows that per hundredweight transportation charges paid by producers who share in the fluid milk market exhibited little change from 1968 through 1973. A cursory observation indicates that subsequent price rises took place at a time of rapid rises in certain transport costs, notably fuel.

Table 5: **Southern Ontario Average Transportation Fees, 1968 to 1977**

Year	Group I (fluid) producers	Group II (manufacturing) producers
	— cents per hundredweight —	
1968	34.4	
1969	33.8	
1970	33.6	23.5
1971	34.9	25.0
1972	36.0	28.8
1973	36.0	30.0
1974	41.0	34.6
1975	45.5	38.5
1976	46.5	39.5
1977 (8 months)	49.8	43.0

Source: Ontario Milk Marketing Board

The OMMB pools milk transportation charges such that each producer in a pool (e.g. Group I pool, Southern Ontario) pays the same per hundredweight transportation charge. The implications of this policy are discussed

[18] Ontario Milk Marketing Board pamphlet, "What Milk Transportation is About".

[19] Ontario Milk Marketing Board pamphlet, "How Ontario Producers Pay for Bulk Milk Haulage".

later in this paper. It can be said that this policy creates an upward pressure on producer transportation charges because individuals have no incentive to locate near processing plants and thus minimize transport costs. This clearly involves a policy decision that raises costs; it does not materially affect the conclusion that the Board has apparently restrained the levels of margins attained by transporters, to the benefit of milk producers. Consumers probably benefit indirectly in that lower charges at any link in the marketing chain may tend to result in lower consumer prices than would otherwise prevail.

J. IMPROVE FARM EFFICIENCY

The OMMB provides to producers services that encourage improvements in efficiency in a number of areas. These may include production, management or general economic advice that, potentially, can enhance efficiency. The Board provides members with written information and employs a network of fieldmen who may visit and advise farmers in various areas of the province on a wide range of production and management problems. The Board conducts and supports research aimed at improved farm efficiency.

The operations of the OMMB may also have a negative impact on farm efficiency. This can result through regulations, including quota regulations, that tend to act as an impediment to the attainment of economies of size. Moreover, the umbrella of OMMB regulation shields producers from the full effect of cost-reducing incentives provided by forces of competition. Consequently, part of the distributive transfer of income from consumers to producers may not be fully realized by producers as extra profits but may instead finance inefficiency. Of course, this effect should be observed only among some producers who have been "given" quota rather than having bought it. In the latter case, the costs of buying the quota will tend to prevent the luxury of inefficiency!

K. EQUITY AMONG PRIMARY PRODUCERS

The OMMB has clearly been concerned with the goal of attaining equity amongst dairy producers. Prior to the formation of the OMMB, the average price per hundredweight which individuals received for their milk varied substantially according to which processing plant bought the milk. Some producers sold most of their milk on the fluid market. Other producers in highly similar circumstances (quality, location) received considerably lower returns from their milk, which was shipped to the manufacturing milk market. Transport rates would also vary widely, as two neighbours might

each ship milk to different processors; one nearby the other more distant. These differences amongst producers caused considerable ill-feeling; the OMMB has worked to reduce them.

All producers in an area (e.g. Southern Ontario) now receive the same price per hundredweight for milk shipped within Group I (fluid) quota, and the same price for milk that is utilized solely in the lower-priced manufacturing milk market. Moreover, through a "graduated entry" program, individuals shipping only manufacturing milk but meeting fluid milk quality requirements may "enter" the fluid market by being granted Group I quota (to a maximum of 400 pounds, a fairly small amount) gradually over a four year period. Thus, OMMB regulation has sharply reduced but not eliminated price differences amongst producers shipping milk of the same quality.

With respect to rates applying to the transportation of milk from farm to processor, OMMB regulation has resulted in identical rates applying to milk shipped by all producers within a pool (e.g. Group I (fluid) pool in Southern Ontario). This can be said to contribute to equity amongst producers in that neighbours now pay the same charge. However, it may be said to contribute to inequity in that the charge to a producer for transporting his milk is not directly related to the cost of that transportation. In effect, producers located near processing plants currently subsidize those located more distant from processing facilities. Transport rates are discussed in greater detail later in this paper.

L. ATTAIN SOCIAL OBJECTIVES

The difficulty in discerning social objectives that the OMMB may pursue renders virtually impossible an evaluation of the OMMB impact on such objectives.

M. ATTAIN POLITICAL OBJECTIVES

Again, the impossibility of defining the nature of political objectives means the OMMB impact is very difficult to express in the context of such objectives. However, the OMMB is clearly an effective, efficient lobby on behalf of dairy producers. The Board has local organizations which it may coordinate and mobilize to exert political influence at the local level. The Board itself, with a staff that is generally regarded as highly competent, is very effective in communicating its concerns to governments. In short, the OMMB constitutes a most effective lobby on behalf of any objectives it feels it can advance through dealing with governments.

N. MAXIMIZE "ECONOMIC EFFICIENCY"

In some of its operations, the OMMB appears to approach the achievement of the objective to maximize economic efficiency. Examples include some aspects of its transportation activities, such as the elimination of duplication that may occur if several competing milk transporters travel the same routes past the same farms. The Board receives monies from processors for milk sold and distributes the proceeds to producers. A number of efficiencies undoubtedly result from the centralization of administrative functions associated with all producer-processor transactions. An offsetting factor will be additional administrative costs that are sustained in administering regulation.

In a number of other respects, OMMB regulation results in a loss of economic efficiency.

As a result of OMMB regulation, fluid milk prices are higher than they would be if the regulation were not present, and individuals' choices were not impacted by such regulation. Consumers choose to buy less fluid milk than they would buy if the artificial price-raising function of the OMMB were absent from the market place. Society suffers a "social cost" in that some resources would be more efficiently utilized by producing that quantity of fluid milk which, as a direct result of OMMB regulation, is not produced. As these resources are not so utilized, they must consequently revert to their next most productive use. An alternative policy option that could reduce this social cost would be for the Ontario government to make direct "income" grants to fluid milk producers instead of permitting producers to use monopoly power to artificially raise prices and thereby net producer incomes. Of course it is a moot point whether net producer incomes need to be raised!

It is likely that the magnitude of this social cost is quite small. The relatively inelastic demand for fluid milk means that the elimination of the additional price increment involved in the OMMB use of monopoly power would result in a considerably smaller shift in supply. It is the shift in supply that gives rise to the social cost. Moreover, there is an inter-relationship, at the margin, between the primary production of fluid milk manufacturing milk and beef cattle. Some resources (e.g. land) may be fairly readily used in any of these enterprises. As a result, it is doubtful that large social costs would arise from a reallocation of resources amongst these enterprises, particularly when only a small amount of resources would be involved.

OMMB regulations may contribute to a situation where economic units are of less than optimal size and are not located in the most efficient locations. This can involve a failure to reflect in producer returns such cost savings as lower transportation costs that may result from the existence of one large dairy farm compared with a number of smaller ones. Also, regulations dealing with quotas and quota transfer sometimes involve maximum

limits. For example, the current system of rationing quota supplies at a set $16 per pound price involves the setting of a maximum number of pounds of quota that may be sold to a producer at any one time. In addition, the levy of 25 percent of the amount of quota sold by a producer that becomes the 'property' of the OMMB constitutes a disincentive to movement in quota (and therefore fluid milk production) to account for shifts in comparative advantage of location.

One of the costs of regulatory agencies that is often cited is the cost of administering the regulations and other costs that are caused by regulation, for example, simply the time and effort required in filling out forms! It is undoubtedly true that some such costs exist and that some are associated with the regulation of the Ontario fluid milk market. Such losses are "deadweight" losses from the viewpoint of economic efficiency; they make no contribution to economic output.

The deadweight losses directly associated with regulation of the fluid milk market appear very small.

The OMMB annual report for the year ended October 31, 1976 shows total expenses of $3,651,638. This total includes expenses incurred in administering fluid milk marketing and manufacturing milk marketing. It includes the administration of a centralized payments system that collects milk payments from processors and distributes payments to producers for milk shipped. It includes the administration of the transport of milk from farm to processing plant and part of the administration expense associated with product promotion. It includes the provision of advisory services such as nutritional advice to the public and farm management advice to producers. The total also includes monies expended in a manner connected solely with fluid milk market regulation – expenses that would be non-existent in the absence of regulation. However, in the absence of an OMMB, many of the other functions, some of which are necessities, would be performed by someone else, at some expense. It is likely that only a relatively small part of the Board's expenditures can be attributed to expenses that would be eliminated in the absence of regulation. Moreover, unless some form of (possibly voluntary) organization was substituted, it is likely that some of the functions now performed by the OMMB would be carried out in a dispersed fashion at increased cost. In summary, there is little reason to assume Board expenditures represent a significant "deadweight loss" in economic efficiency.

The Milk Commission of Ontario had 1976-77 expenditures of $224,389. Part of this total is directly related to the supervision of OMMB regulation and could be eliminated in the absence of that regulation. However, a number of other functions relate to other areas, such as regulation and analysis of market functions beyond the farm gate. The elimination of Milk Commission of Ontario expenditures connected with OMMB fluid milk

regulation would not result in major savings and efficiency gains. Some costs are sustained by persons or groups who prepare appeals to the Commission of OMMB decisions relating to fluid milk market regulation. It is unlikely that they are significant in the context of an industry with annual retail sales approaching half a billion dollars.

4. Three Policies

Three specific policies currently adopted by the OMMB have far-reaching impact but do not lend themselves to inclusion in the foregoing discussion of the impact of the OMMB in the context of particular goals and objectives.

A. POOLED TRANSPORTATION CHARGES

Under OMMB regulation, all producers in a pool in an area (for example, the Group I or fluid pool, and the Group II or manufacturing pool, in Southern Ontario) pay a uniform per hundredweight transport charge to move their milk from farm to processing plant. Moreover, each processor pays the same price for milk used for a particular end use, regardless of where milk processing plants are located within a particular board area. This situation may adversely affect the location of both dairy farms and processing plants, since both individual farms and individual plants are insulated from variations in transportation charges.

Processing plants have an incentive to locate in areas where their processing costs are lowest, even if these areas are a considerable distance from the location where milk is produced. This will mean farm to plant transport charges are higher than if the plant was located nearer the source of production.[20] A hypothetical example is illustrative.

A plant is located near a population centre and enjoys a cost saving of 25 cents per hundredweight because the cost of transporting end products to market is reduced, in comparison with the costs if the plant were located further away from the city but closer to the farms. However, it costs an additional 50 cents per hundredweight to transport milk from farm to plant, as the distance is much further than if the plant were located near the farms. Assuming other costs are equal, the plant owner gains 25 cents, while producers lose 50 cents per hundredweight. This net loss, 25 cents in this hypothetical example, is the direct result of regula-

[20] In some circumstances, OMMB regulation provides that when a company changes plant location in a way such that the OMMB incurs larger transport costs, the company may be required to pay part of the added costs. In such cases the incentive is reduced although not eliminated.

tion, the plant would locate near the production, with the savings[21] benefitting producers, the processor and consumers.

At the farm level, individual producers nearly always pay the same transport charge regardless of how far their farm is from a processing plant.[22] If a producer considering establishment of a dairy farm observes production costs to be lower by (say) 10 cents per hundredweight in an area 20 miles from a processor in comparison with production costs in an area only 5 miles from a processor, he will tend to locate in the more distant area. Transportation costs may be 30 cents per hundredweight higher, but he does not pay the difference. His share of transportation costs is virtually the same regardless of location. In a market free from regulation, the 20 cent per hundredweight cost saving[23] in this hypothetical example would be shared among the producer, the processor and consumers.

The degree to which these effects have influenced processing plant and farm locations is difficult to assess. It is true that, since the OMMB was formed and pooled transport charges initiated, a large number of small processing plants located in farming areas have closed. It is also true that the large multi-product plants that have tended to replace small, local plants have several economic advantages not related to transportation. However, the present system denies small local plants the benefit of one of the few significant natural economic advantages they possess. The magnitude of this advantage could be up to 25 percent of total processing costs, depending on which product(s) is processed, and the magnitude of the saving in transportation miles and hence costs. Thus, OMMB transportation regulation has contributed (by an unknown extent) to the closing of small plants by not making allowance for locational advantage in establishing a uniform price which all plants must pay for milk regardless of their location.

The 1965 *Report of the Ontario Milk Industry Inquiry Committee* recommended that transportation expenses be pooled. In so recommending, the *Inquiry Report* stated "there is reasonable correlation between the location of farms producing milk and of plants to which it should be shipped". That this may have been true in 1965 could well have been due in part to the fact that until that time transportation charges were *not* so pooled.

[21] It is stressed that the figures used are hypothetical. The example shows the existence of potential savings; no evidence is presented as to their actual magnitude. Savings to producers and consumers would likely be small. The benefit to small processors may be significant, and might slow, although probably not reverse, the trend away from smaller plants towards larger, more efficient operations.

[22] An "isolated" producer may under some conditions be charged a surcharge equal to half the difference between the cost of transporting his milk and the average pooled charge.

[23] Footnote 21 applies to this example as well.

B. QUOTA SALE RESTRICTIONS

A current OMMB regulation sets a $16 per pound price for fluid milk quota. The Board is now the only buyer of quota from producers and the only seller of quota to producers. Since quota is really worth more than $16 per pound, the Board has to ration available quota amongst prospective purchasers. The measure was instituted in response to concern that quota prices were getting "too high". Quota sold for as much as $30 per pound in March, 1976, just before the restriction was introduced. (Prior to April 1, 1976, quota could be transferred amongst producers at any price, subject only to a levy of 25 percent of the quantity of quota sold).

It is interesting to consider the rationale used to justify the $16 per pound maximum price for fluid milk quota. In the May, 1977 issue of *Ontario Milk Producer* (the official monthly publication of the OMMB), a report was presented of regional meetings where producers were able to ask questions concerning Board policies. One question asked in part, "Why didn't the Board allow fluid milk quota to be bought and sold at $20?" The response, in part, was "We'd run a considerable risk of public outcry for $20 quotas."

It is not surprising that the public might be thought potentially concerned about $20 quotas. A significant quota value is a strong indication that the price of fluid milk is higher than it needs to be. Higher quota values indicate that the price of fluid milk includes a larger amount of monopoly profit.

Restrictions on the *price* of quota do not substantially alter its *value.* They merely make value more difficult to determine. The reason quotas have value is because fluid milk prices are higher than they need to be. The restrictions on quota prices do not alter this situation, nor do they reduce the amount by which fluid milk prices are higher than they need to be. These restrictions do, however, *hide* some of this evidence from public view.

The $16 price restriction may lead to costs and distortions in the primary production of fluid milk. The major potential distortion is that of location of production. If quotas cannot be sold for what they are worth, there is an artificial incentive for quota-holders to retain their quotas, even if conditions change such that someone else can more efficiently produce the milk. This restriction, if continued, will constitute a disincentive to the attainment of certain cost efficiencies. The regulation creates an artificial incentive for fluid milk to continue to be produced on the same farms and in the same volume as is currently the case, even if this rigidity involves higher costs. There is also an artificial incentive for an older or less efficient farmer to continue in production rather than sell his quota at fair market value to a younger or more talented individual.

C. PUBLIC ACCOUNTABILITY

The OMMB conducts its affairs in a manner that makes those affairs open to extensive public scrutiny. The milk pricing formula it uses to guide its pricing decisions is public, as are all the data used to construct the formula. The base price to which the formula is applied was arrived at using cost information that is public, and value judgments that have been made explicit. The Board has shown willingness to communicate fully with such organizations as the Consumers Association of Canada. The Board has provided comprehensive data concerning its operations to individuals and groups requesting such data. This study has benefitted considerably from this positive approach to information requests. The Board provides information on even such sensitive topics as quota values and salary expenditures.

The Board's record in explaining its actions to the public has not, however, been perfect. An example of insufficient explanation is the procedure the Board used in developing a new base price for its pricing formula. The new base price was not brought forward for public scrutiny, nor were there discussions in advance of its utilization as part of the rationale for a price increase.

The admittedly laudatory tone of these overall comments concerning the OMMB's record of conducting its affairs in a relatively open manner is not intended to suggest the Board has done anything more in this respect than the public has every right to expect of an agency exercising monopoly powers conferred through public legislation. Indeed, further improvement should be forthcoming. However, the OMMB record of public accountability stands in stark contrast with the record of many other agricultural marketing agencies in Canada which similarly exercise monopoly powers. The Canadian Egg Marketing Agency, for example, refuses to make public complete information explaining the establishment of egg prices in Canada.

5. Some Alternatives

A number of policy alternatives may be considered in an examination of the present system of Ontario milk market regulation. Different emphasis than at present may be placed on the various goals and objectives discussed earlier in this paper. Different and sometimes more efficient means may be employed to attain similar objectives.

A choice amongst objectives generally involves major consideration of value judgements. A good example is the question of whether fluid milk producers should have their income supplemented above levels attainable in a competitive market. One may hold the view that fluid milk producers are

no more deserving of special assistance than hog producers, corn growers, or other independent businessmen in fields of endeavour outside agriculture. On the other hand, one may feel that dairy farmers deserve supplemental assistance similar to that which society may choose to provide the aged or the infirm. This is essentially a value judgement.

This chapter focuses largely on alternate means of attaining objectives rather than value judgements about which objectives are appropriate. The intent of the chapter is to provide an indication of the scope of different means of attaining objectives. It looks briefly at a few measures that are potentially appropriate to milk marketing in Ontario, but it is not a comprehensive consideration of all such alternate measures.

Supply control and administered pricing are policy options currently utilized in fluid milk marketing in Ontario. Yet these same tools may be used in a somewhat modified way. In particular, if society wishes to have a stable supply of high-quality fluid milk available to consumers at stable prices but does not wish to provide substantial monopoly profits to dairy farmers, these same policy tools can be utilized.

The Food Prices Review Board, in its report *Dairy Foods II: Policy*, recommended a policy alternative that would involve supply management and administered pricing for fluid milk but not substantial monopoly profits for producers.[24] That policy alternative involved many of the same means of regulating the fluid milk market as are presently utilized in Ontario. The major difference involved placing supply and price control directly in the hands of an independent administrator or administering agency and not in the hands of producers. Quotas would be utilized in a form similar to the current system. Buying and selling of quotas would not be substantively restricted. However, if fluid milk quotas traded at substantial values, this would be a signal to the administrator that the fluid milk price was too high and should be reduced. The Food Prices Review Board concluded that this policy alternative would closely approximate a domestic free market in terms of the average price received by farmers for milk and paid by consumers for fluid milk purchased. Consumers would pay lower prices than at present, and producer prices for fluid milk would be established at a level that covered all of their production costs plus a profit level competitive with alternative enterprises.

Direct subsidies to producers may be substituted for monopoly profits, if society wishes to improve the net income position of dairy farmers. Subsidies are a less costly form of providing such assistance, assuming entry restrictions continue, since there is no attendant misallocation of productive resources. Moreover, subsidies may be judged preferable in that they may be raised through a progressive tax system. The current system of rewarding

[24] For a more detailed outline of this alternative see *Dairy Food II: Policy* published by the Food Prices Review Board, February, 1976.

producers with monopoly profits is borne equally by a rich fluid milk consumer and a low-income fluid milk consumer.

Contributory farm income stabilization plans may, at least in theory, protect producers from wide income swings associated with economic cycles. In principle, producers pay money into a fund when their incomes are high and draw money out when their incomes are low. Such a system applied to fluid milk production could theoretically stabilize producer net income and thereby result in smaller swings in producers' production decisions than would prevail in a free market without such a scheme. This policy alternative could still leave considerable instability in the consumer price of a product such as fluid milk, because even small swings in supply of products with inelastic demand characteristics result in relatively large price changes.

The foregoing policy alternatives give some indication of the scope of the differences in policy options open to society in considering whether or not, or how, to regulate agricultural commodities. It is not possible in the context of this paper to attempt a comprehensive listing of such options, but even a small sampling shows a fairly wide and complex range of alternatives.

6. Conclusions and Recommendations

The Ontario Milk Marketing Board (OMMB) is a regulatory body established under provincial legislation. The Board is comprised of a group of dairy farmers elected by their fellow milk producers. The Board is given broad regulatory power over milk marketing in Ontario. The Board has monopoly control over the sale of raw, unprocessed milk produced in the province.

Any of the Board's decisions may be appealed through the Milk Commission of Ontario, a supervisory body appointed by the provincial government. The Commission may alter or disallow OMMB decisions. The Commission may rescind the delegation of monopoly powers to the OMMB, and may exercise such powers itself.

The Ontario Milk Marketing Board has a single stated objective, "to improve the income of milk producers and the market stability for milk in order that their net returns for management, investment and labour will be equal to that for comparable enterprises."

Federal government policies and programs are a major influence in the market for manufacturing milk (that is, milk used to manufacture dairy foods, with the exception of fluid milk). This sharply curtails the potential for the OMMB to exercise monopoly power in carrying out its functions in the manufacturing milk sector.

The Board's monopoly control over the marketing of fluid milk at the

farm gate level gives the Board potent economic power. Unlike the situation with manufactured milk products, there is no competition from fluid milk produced in other provinces. The only *de jure* restriction on this power is that provided by the Milk Commission of Ontario.

The Board has used its monopoly powers over fluid milk to raise prices above the level which would on average prevail in a competitive market. The magnitude of this monopoly price increment is at least 1.33 cents per quart or over $11 million per year. These figures represent a distributive transfer of income from fluid milk consumers to fluid milk producers. These figures represent "lower bound" calculations, based on a highly conservative analytic approach. The actual monopoly price increment is no doubt larger and perhaps considerably larger.

The Board's exercise of monopoly power to maintain artificially high prices is far from unique among supply controlling marketing boards in Canada. Indeed, the amount by which regulation artificially raises fluid milk prices is much larger in at least one other province in comparison with Ontario. Monopoly price increments, similar in principle if not in magnitude, exist for most milk, poultry and egg farm-gate products in Canada, as a result of the exercise of monopoly powers by other supply-controlling agricultural marketing boards.

A policy alternative to present OMMB regulation exists whereby the advantages of ensuring an adequate stable supply of high-quality fluid milk to consumers may be retained, without the monopoly profits for milk producers which result from current OMMB regulation. Under this alternative, price-setting powers would be removed from the OMMB and given to an independent administering agency. The agency would be explicitly charged with ensuring an adequate, stable supply of high-quality milk *without* significant monopoly profits to producers. The elimination of monopoly profits (while still allowing producers to attain *competitive* profits) would be assured by fluid milk price reductions which the agency would implement if fluid milk quota assumed a substantial value (the existence of which indicates the existence of substantial monopoly profits).

Fluid milk producers should not have the monopoly power over fluid milk prices currently granted them through the OMMB. It is realistic to expect producers will continue to use this power to generate monopoly profits at the expense of Ontario fluid milk consumers.

It is recommended that the Ontario government should amend the *Milk Act* to remove monopoly pricing and supply control powers from the Ontario Milk Marketing Board. However, regulation of the price and supply of fluid milk in Ontario should not be abolished, as regulation can help ensure a stable supply of high-quality fluid milk to consumers, at stable prices. Those regulatory powers should rest with the Milk Commission of Ontario, a government-appointed body.

The Milk Commission of Ontario should not have its present authority to delegate those powers to the Ontario Milk Marketing Board. The amended *Milk Act* should instruct the Milk Commission of Ontario to regulate fluid milk marketing so as to provide adequate supplies of high-quality fluid milk to consumers, at stable prices that are as low as is economically feasible and therefore do not entail significant monopoly profits for producers at the expense of consumers. It is stressed that a transfer of price and supply control powers from the OMMB to the Milk Commission of Ontario does not by itself guarantee an improved system. If the Milk Commission were to permit the maintenance of substantial monopoly profits to producers, the transfer of powers would be merely cosmetic. Amended objectives are an integral feature of this recommendation.

It is recommended that the Government of Ontario provide the Milk Commission of Ontario with sufficient funds and expertise to ensure the competent discharge of the proposed additional responsibilities outlined in the preceding paragraph.

Current OMMB restrictions on the price of fluid milk quota do not substantially alter its underlying value, nor do they alter the reason for that value, namely that fluid milk prices are higher than they need to be. The restrictions merely hide part of the evidence of that value from public scrutiny.

It is recommended that fluid milk quotas be freely tradeable at market-established prices.

If the Ontario government wishes to enhance fluid milk producers' incomes to a level higher than that which competitive market forces indicate, it is recommended that it do so by paying direct subsidies to fluid milk producers. It is a fundamental inequity that low-income consumers of fluid milk currently bear a burden, disproportionate to their income, of the monopoly profits that now accrue to dairy producers.

If the Government of Ontario chooses not to subsidize milk producers, while nevertheless implementing the first recommendation contained herein, *it is recommended* that the government make direct payments to fluid milk quota-holders to compensate them for at least part of the resultant drop in the value of their quotas. Individuals wishing to produce fluid milk in Ontario under current regulations have no choice but to have, buy or otherwise acquire quota. This situation is the indirect result of government action in passing the current *Milk Act*. The government, therefore, has a moral responsibility to compensate producers for the adverse implications (to them) of a change in policy. This "one shot" cost to the government will be out-weighed by the benefits consumers will reap, on a continuing basis through lower fluid milk prices.

The OMMB performs a number of marketing functions not directly connected with its monopoly pricing activities. Many of these functions are

necessary and would be performed by other individuals or agencies in the absence of the OMMB. For the most part, the OMMB appears to perform such functions effectively and efficiently. Some of these functions are probably performed much more effectively, and at lower cost, by a centralized agency than separately by dairy farmers, processors and transporters.

It is recommended that the Ontario Milk Marketing Board continue to carry out most of the marketing functions which it now carries out, except the control of the price and supply of milk.

Notwithstanding the preceding recommendation, OMMB regulation of the transportation of milk from farm to plant is unsatisfactory. Under OMMB regulation, milk transportation costs from farm to processing plant are pooled so that each producer pays the same per hundredweight transportation charge, regardless of how much it costs to transport his milk to market. Moreover, each processor pays the same price for milk, regardless of the transportation costs incurred in transporting milk to individual processing plants. These regulations encourage inefficiencies in the location of dairy farms and processing plants, and give large plants an artificial advantage over smaller plants which are located near dairy farms.

It is stressed that the preceding conclusion is qualitative. The actual costs of these regulations are unknown and may not be substantial. Nevertheless, it is undesirable that the regulations encourage inefficiencies. *It is recommended that* the Ontario Milk Marketing Board consider methods it might adopt in order to better relate the charge individual producers pay for the transport of their milk from farm to processor, to the cost of that transportation. The Board should adopt one such method. *It is further recommended that* the Ontario Milk Marketing Board consider methods it might adopt to eliminate the artificial advantage its current regulations give large, centralized processing plants at the expense of small, local plants. The Board should adopt one such method.

The OMMB has conducted its affairs in a reasonably open manner. While this is no less than should be expected of an agency granted monopoly powers under legislation, the OMMB record stands in stark contrast with the record of many other regulatory agencies in Canada which wield similar monopoly power.

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The Development of Regulation in the Highway Trucking Industry in Ontario

Norman Bonsor

1. Introduction

During the period from the end of the First World War to the mid 1930's, the trucking industry in Canada underwent rapid technological and economic change. Coincident with a massive increase in the quantity and quality of highways, the number of commercial vehicles increased dramatically. In 1916, for example, there were 2,618 commercial vehicles registered in Ontario, and by 1937 this number had risen to 107,458 (Ontario Royal Commission on Transportation, 1938, 62). Prior to the early 1920's, Canadian railroads enjoyed a virtual monopoly in the transportation of most inter-city freight shipments. With the increase in the use of highway trucking, they began to face increasingly vigorous inter-modal competition.

Prior to 1927, the Ontario "for-hire" trucking industry was not subject to any significant regulatory constraint. In the twenties and early thirties, the industry was characterized by extremely easy entry conditions. The average trucking enterprise was essentially a one or two truck operation, and the degree of monopoly power in the industry was consequently very low. From 1923 to 1929, the number of truck registrations in Canada increased from 54,000 to 155,000 (Royal Commission of Enquiry into Railways and Transportation in Canada, 1932). Given this large increase in supply and the low level of seller concentration, it is not surprising that rate levels started to fall.

In Ontario, the organized sector of the industry (through the Automotive Transport Association of Ontario) and the railroads called, in October 1926, for regulation of highway carriers. With increasing inroads being made by the trucking sector into freight transportation at the expense of rail carriers, it is logical that ". . . it was probably the railroads, feeling the

injustice of motor vehicle competition which first urged the need of regulating these competitors" (Jackman, 1938, 845).

In response to complaints by the railroads and the organized sector of the trucking industry, the *Public Commercial Vehicles Act* of 1927 (S.O. 1927, Ch. 68, proclaimed 1928) was enacted in Ontario. Under this Act, the Department of Highways was given authority to issue permits for "for-hire" trucking. The legislation did not, however, lead to the imposition of any significant degree of entry control.

The economic health of the industry was worsened by the fall in industrial output that began in 1929. Since the demand for transportation is a derived demand, any decline in the aggregate demand for goods will cause a decrease in the demand for transportation services. The advent of the Great Depression caused pressure groups to seek a more restrictive entry policy for the trucking industry both in Ontario and in the United States. Fair and Williams give one of the best descriptions of the industry's condition in the 1930's:

> there was then a surplus of transportation of all kinds. Competition became destructive, large numbers of small operators were engaging in motor transportation. Their rates were not published. Many of the smaller operators were not aware of the costs of doing business and they made such rates as seemed required to secure traffic. Many of them failed and went out of business, but others promptly took their places. There was no rate structure, variations in individual rates were wide, rates were constantly changing, charges to various shippers using the same carrier were often different and the service was neither stable nor reliable. (1959, 488)

As a direct response to this situation, the *Public Commercial Vehicles Act* was amended in 1934, and control over entry was given to the Ontario Municipal Board. (In 1935, the U.S. Motor Carriers Act was enacted with a similar objective of restricting entry.) The 1934 amendment required that any applicant for a licence must first obtain a certificate of "public necessity and convenience" from the Board. In its report for 1934, the Board offered the following insights into its regulatory philosophy.

> It became quite apparent that truck licences were being granted by the Department in excess of the public demand, and as a result a policy was adopted to grant only such licences in the future as the service of the public required.

Consequent to this, the Board followed three principles when deciding on whether or not to issue a certificate:[1]

a) Permitting one licensee to provide all local services between two main points.

[1] A description is contained in *Ontario Royal Commission on Transportation* (1938).

b) Continuance of a license to an operator who provides a service in conformity with all regulations.
c) Where a license is transferred, granting preference under equality of conditions to an operator already providing services in the district.

The 1934 amendment represented a large regulatory intrusion into the operation of the industry in Ontario. For some groups, particularly the industry itself and the railroads, it did not go far enough. The Automotive Transport Association of Ontario, representing most licenced carriers, vigorously promoted not only restrictions on entry but also the strict regulation of rates before the legislature and the Ontario Royal Commission on Transportation.[2] In general, the type of rate regulation being promoted would have set truck rates at the level of rail class rates. It is to be noticed that, because of competition from highway carriers, the rail industry was forced to offer rates below class rates on many routes and commodities.

The question arises whether the regulatory mechanism instituted in 1934 was responsible for eliminating or reducing the problems of the industry. The lower turning point of the Great Depression in Canada was 1933, and from 1934 onwards, output and the level of employment in the economy began to climb. This, coupled with the age of the capital stock in the trucking industry, would have been sufficient to eliminate the excess capacity without regulatory action by the Ontario Government.

The existence of "over-competition" in the early thirties was caused by a unique set of economic circumstances. The industry underwent a significant expansion of capacity in the twenties and entered the start of the depression with a large excess stock of trucks. The supply of used trucks tends to be highly inelastic above the cost of their scrap value, and as the depression wore on, the price of scrap and used trucks fell. In consequence, the cost of entering the industry also fell. Second, as the unemployment situation worsened, the price of labour to the trucking industry declined, while the supply of labour increased.[3] Given that during the twenties and thirties a very high proportion of industry variable costs was attributable to labour costs, the cost of providing highway transportation services fell. In brief, much of the decrease in highway freight rates during the early thirties can be traced to decreases in the cost of major inputs. When the general economy started to recover, labour supply to the industry was lowered and the stock of trucks overhanging the market also decreased as they wore out and/or the price of scrap rose. In addition, demand for highway transportation also increased.

[2] The Chevrier Commission, reporting when economic conditions were improving substantially, called for both rate and entry controls.

[3] See Kahn (1971) p. 180.

The basic method of regulating the "for-hire" trucking industry in Ontario has not altered greatly since 1934. There have, of course, been a large number of minor changes which have served to increase the complexity of regulation. The requirements of obtaining a certificate of public necessity and convenience are still at the heart of the regulatory system.

2. Existing Regulations

The current regulation of "for-hire" highway trucking in Ontario is conducted under the authority of the *Public Commercial Vehicles Act* (RSO 1970, Ch. 375 as amended to 1976 and Regulations 699 and 700 as amended), the *Motor Vehicles Transport Act* (Canada) 1954 and the *Ontario Highway Transport Board Act* (RSO 1970, Ch. 316 as amended to 1976 and Regulation 632). *The Motor Vehicles Transport Act* delegates the authority for extraprovincial and international freight and passenger operations to provincial governments.[4] The terms and conditions of extraprovincial operating authorities in Ontario are subject to the provisions of the *Public Commercial Vehicles Act.* The *Ontario Highway Transport Board Act,* first enacted in 1955, created the Ontario Highway Transport Board (O.H.T.B.) to deal with truck and bus regulation.

The *Public Commercial Vehicles Act* (PCV) dictates that no person shall operate (for compensation) a commercial vehicle for the transportation of goods of any person, unless he has first obtained an operating licence. The Act requires that, before the Minister of Transportation and Communications issues an operating licence, an applicant must first obtain a certificate of Public Necessity and Convenience from the Ontario Highway Transport Board. There are three exceptions to this requirement:

1. "For-hire" trucking within an urban zone. The exemption applies to movements within a single urban municipality and a zone which may extend three miles beyond the municipal boundary. Such carriers may be subject to municipal licensing restrictions however. The exemption does not extend to carriers operating between two former municipalities of a regional Government. Such intercity movements are the responsibility of the O.H.T.B.
2. An agricultural exemption pertaining to transportation from a farm or forest by "for-hire" carriers of products of such farm or forest (excluding milk and livestock).

[4] In the Winner decision of 1954, the Privy Council ruled that a province has no power to restrict interprovincial traffic. Since provinces had been regulating such traffic and since the Federal Government did not wish to enter into this regulatory field, the 1954 legislation was enacted. Part III of the National Transportation Act of 1967 provides for federal regulations of extraprovincial traffic. It has not, as yet, been implemented.

3. Valid lease arrangements. These arise when the lessee has exclusive control over the leased vehicle and driver, and where the vehicle is not the subject of more than a single lease at any given time.

Regulation 700 of the *P.C.V. Act* classifies operating authorities into a number of categories. Carriers may generally hold more than a single class of licence at any one time. A brief description of the current classification is given below, while a full description is given in Appendix 1.

Class "A" Operating Licence

This allows the licencee to operate a general merchandise shipping operation over named routes.

Class "C" Operating Licence

This permits the holder to move goods on a continuous trip. Severe restrictions are placed on number of consignors or consignees who may be involved in the shipments. Operating authorities in this class are designated as full-truckload licences without stop-off privileges.

Class "D" Operating Licence

Allows the holder to operate a service exclusively for the movement of a specific class of freight or for transporting goods to or from the person named in the licence.

Class "E" Operating Licence

For the transportation of milk or cream.

Class "F" Operating Licence

Allows the holder to transport items such as rough lumber, bricks, and cement.

Class "FS" Operating Licence

For the transportation of livestock, feeds, seed and supplies for use in the operation of farms.

Class "FF" Operating Licence

Authorizes the holder to operate as a freight forwarder.

Class "H" Operating Licence

Allows the holder to conduct a general household moving business.

Class "K" Operating Licence

For the movement of heavy duty machinery.

Class "L" Operating Licence
For the transport of goods in bond.

Class "R" Operating Licence
For the operation of dump trucks.

Class "T" Operating Licence
Transportation of bulk commodities in a tank vehicle.

Class "X" Operating Licence
This authorizes the licencee to operate as an extra provincial carrier. An interprovincial carrier must have the approval of all provincial transport boards in whose area he wishes to operate.

In addition to the above detailed classification of operating authorities, the O.H.T.B. under the terms of the *P.C.V. Act* has the power to "prescribe terms and conditions to govern the transportation of goods. . .and to approve the conferring by the licence of special, exclusive or limited rights with respect to the operation of public commercial vehicles. . ." The Board has used this authority to place restrictions on operating licences with respect to commodities carried, gross shipment weight, vehicle types employed, and origin and destinations. In addition, the Board may also restrict carriers to a given fleet size.[5] The following is a small sample of such restrictions:

1. "Restricted to 12 commercial motor vehicles and trailer combinations."
2. "Restricted to commercial motor vehicles having a maximum gross weight of 8,000 lbs."
3. "Restricted against operation of tank vehicles and no individual shipment shall exceed 30,000 lbs."
4. "Restricted to shipments not exceeding 16,000 lbs. only when carried on top of a bulk load."
5. "Provided that the load bearing equipment surface of the equipment utilized be of a height not less than 45 inches from the ground."
6. "For pre-stressed concrete beams on pole trailers. . .provided that the beams be not less than 40 ft. in length."
7. "One person's goods only at a time to be carried on one trip. . .also for goods which by their nature, size, weight or shape require special loading or unloading devices and the use of low bed float equipment . . ."
8. "No movement of telephone poles."

[5] According to the submission of the Ontario Trucking Association to the Ontario Select Committee on the Highway Transportation of Goods, this power is apparently not widely exercised.

9. "Movement of new boats prohibited."
10. "Parts attachments and accessories for the above provided the same may be carried only if their transportation is incidental to the transportation of the goods described."
11. "No individual drum, pail, box, bin or bag of the produce to weigh less than 25 lbs."
12. ". . .Highway 2 between and including (Place A) and the eastern extremity of the said highway (no local business permitted between place A and B, restricted to pickup or delivery of goods from or to points on other routes in the licence except as otherwise restricted therein). (In this case the licence is 80 pages long.)[6]

As was shown above, the *Public Commercial Vehicles Act* exempts a number of operations from the provisions of the Act. Private carriage, for example, is completely exempt from economic regulatory control as is the "for-hire" transportation of goods undertaken in vehicles that do not meet the description of a commercial vehicle – such as a private automobile.

A major area of contention has been the operation of the leasing sector of the industry. The Ontario Trucking Association, representing the majority of the licenced sector of the industry, has vigorously opposed the existing leasing provisions of the *PCV Act.* The current legislation states that a lease shall not be considered to be a valid lease (and hence the operation requires a PCV operating authority):

a) Unless it is in writing setting out the terms of the lease;
b) Unless the lessee acquires or exercises exclusive possession and control over the leased vehicle;
c) Where the lessee or his agents engage or pay directly or indirectly the driver of the vehicle;
d) Where the lessee or his agent exercises any control over the driver of the leased vehicle;
e) Where the lessor of the vehicle or his agent assumes any responsibility for the goods transported in the vehicle.
f) Where the vehicle is the subject of more than one arrangement or agreement for its use during the same time period.

In 1976, Bill 4 was introduced in the Ontario legislature to amend the *PCV Act* so as to require the lessee to return the vehicle to the place where he received it from the lessor. In effect, this would have prohibited two-way trip leasing. The Ontario Trucking Association views much of the present volume of leasing arrangements as intended merely to circumvent the need for carriers to obtain an operating authority. The Association has estimated that 10% of Ontario licenced truck revenue – or $120 million – has been

[6]The above restrictions are quoted in the final report of the Select Committee on the Highway Transportation of Goods. (III-45) Restrictions on individual licences are given (in a condensed manner) in the Ontario Trucking Association's Ship-by-truck directory.

diverted to the unlicenced trucking sector, most of it in the form of high volume traffic.

There have been two main forms of leasing arrangements intended to circumvent the necessity of obtaining a PCV authority. They are:

a) Where the shipper "sells" his product to the trucker, who then "trucks" his own goods to the consignee.
b) Where the lessor provides the driver in one of the following ways: where the leasing company forms a driver pool or where an owner driver leases his equipment with himself as driver.

The introduction of Bill 4 caused a large outburst of protest from the unlicenced (leasing) sector of the industry. In consequence, Bill 4 was left standing in the legislature after the second reading, and a select committee on the Highway Transportation of Goods was set up in May, 1976 to investigate the existing regulatory system.

3. Powers and Procedures of the Ontario Highway Transport Board

The Ontario Highway Transport Board is charged with carrying out obligations imposed on it under the *Public Commercial Vehicles Act* (RSO 1970, Ch. 375), the *Public Vehicles Act* (RSO 1970, Ch. 392), and the *Motor Vehicle Transport Act* (Canada). The bulk of the Board's work is related to the regulation of intra and extra provincial "for-hire" highway trucking (the *Public Commercial Vehicles Act* and the *Motor Vehicle Transport Act* respectively). The Board also regulates the bus and school bus industry under the *Public Vehicles Act.* In addition, the Board is involved in making recommendations with respect to requests for taxi-cab licences to serve Toronto International Airport. Such recommendations are forwarded to the Federal Minister of Transport.

As constituted under the *O.H.T.B. Act*, the Board consists of three members or as many more as the Lieutenant Governor in Council may determine, of whom one shall be designated as chairman and not more than two as vice-chairmen. As of the end of 1976, the Board consisted of a chairman, two vice-chairmen and seven other members. Under S.5 of the Act, subject to S.6, two members constitute a quorum. S.6 states that the chairman *may* authorize one member of the Board to hear and dispose of any application or reference to the Board.

Upon application for a licence, the Board will conduct a hearing to determine whether a certificate of public necessity and convenience is to be issued. The Board will fix a hearing date and publish it in the *Ontario Gazette,* together with details of the application. Any person opposed to the

application must file an objection at least 15 days prior to the hearing date. If no objection is received, the Board may dispose of an application summarily. In the case of an objection, the applicant must be served with a copy on or before the day it is filed, and any reply to the objection must be served on the respondent on or before the date of filing, which must be at least 5 days prior to the hearing.

In addition to hearing requests for operating authorities, the Minister will refer an application for the transfer of an operating licence to the Board, who will hold a hearing and report to the Minister whether or not public necessity and convenience served by the transportation service performed under the licence will be prejudiced by the transfer. The Minister will consider the Board's report and may approve or refuse the transfer, giving reasons for his decision. The Minister may also require licence holders to inform the Board of share transfers, and the Board will decide whether this constitutes a transfer of control.

An operating authority expires automatically on July 1 of each year, unless the holder renews his vehicle licence pertaining to the authority. The Board or the Minister, however, may order a review of the operating authority having regard to the test of public necessity and convenience. (S.8 of *P.C.V. Act* and S.16 *O.H.T.B. Act.*) The Minister may cancel an operating authority, subject to the right of a hearing before the Board, under the following circumstances:

i) Where service is not commenced within 30 days after the issue of the licence.
ii) Where service is not provided for a continuous period of 30 days.
iii) Where the licencee is financially incapable of providing or continuing to provide services.
iv) Where the licencee or a person under his control contravenes the *Public Commercial Vehicle Act,* the *Highway Traffic Act,* regulations made pursuant thereto, or the terms and conditions of the operating licence.

It is to be noted that the review powers are used. In 1976, for example, the Board conducted 266 reviews and heard 64 cases for share transfer and 337 for transfer of operating authorities.

A carrier desiring to discontinue service may not do so, unless he gives ten days notice to the Minister. If he abandons a specific portion of his licence authority without notice, he is subject to the Board's or Minister's power of review over the rest of his operating authority. No information could be obtained to indicate the degree of exit control. However, evidence was presented to the Ontario Select Committee that there are dormant operating authorities, i.e. licences which have not been cancelled, although no service is being provided.[7]

[7]Interim Report of the Select Committee on the Highway Transportation of Goods.

Hearings before the Board are formal in nature, being governed by SS4-24 of the *Statutory Powers Procedure Act* which in turn provides for the application of the *Evidence Act.* The decisions of the Board may be appealed by an interested party to the Lieutenant Governor in Council within 60 days of the decision. The Lieutenant Governor in Council may:

a) vary, confirm or rescind the order *or*

b) require the Board to hold a new public hearing.

Under b) there is no further appeal.

Appeals on points of law are to the Ontario Supreme Court. Section 20 of the *Ontario Highway Transport Board Act* provides that the Lieutenant Governor in Council may require, any party may apply to, or the Board itself may move the Board to state a case in writing for the Supreme Court.

Under S.17 of the Act, the Board may at any time rehear any application and may review, amend or revoke its decisions, orders, directions, certificates or approvals.

As has been noted above, the Board is empowered to determine whether a licence is warranted "on the ground that public necessity and convenience would be served thereby" (S.6 of the *Public Commercial Vehicles Act*) or in the case of a transfer, that it will not be prejudiced by such transfer. The Board views its objectives as:

> To regulate the transportation of people and goods in such a manner as to ensure a competitive balance but to avoid a destructive over-supply of carriers. (Answer to O.E.C. Questionnaire)

or

> To provide a reasonable level of transportation and continuous and dependable service to small centres, to regulate the use of public and public commercial vehicles having regard to public interest, public convenience and safety. *(Annual Report)*

The term public necessity and convenience provides the Board unfettered discretion on how it is to be interpreted and applied. It is clear from the decision of the Supreme Court of Canada in *Union Gas v. Sydenham* 1957 (S.C.R. 185) that the decision of an administrative Board in applying the test of public necessity and convenience is a subjective matter. To quote Rand, J. ". . .it is not an objective existence to be ascertained; the determination is the formulation of an opinion in this use, the opinion of the Board and Board only." In 1935, Masters, J.A. wrote, "The distinguishing mark of an administrative tribunal is that it possesses a complete, absolute and unfettered discretion, and is guided by its own ideas of policy and expediency. Hence, acting within its proper province and observing any procedural formalities prescribed, it cannot err in substantive matters because there is no standard for it to follow and hence no standard to judge or correct it by."

Public necessity and convenience is thus a subjective and nebulous provision which allows the Board unlimited discretion. The Chairman of the

O.H.T.B. has stated that ". . .In Ontario, these words are subject to our interpretation as we see the circumstances of each situation."[8]

4. Hearings Before the Board

Hearings before the O.H.T.B. are highly structured and formal in nature, resembling more closely those in a court of law than those before a typical administrative tribunal. The proceedings follow an adversary pattern: carriers holding operating authority will strenously oppose the issuance of a certificate of public necessity and convenience to a potential competitor. An applicant for a licence will present shipper witnesses to the Board in an attempt to show that public necessity and convenience will be served by the grant of an operating authority. In similar manner, existing licence holders provide arguments designed to show that the requested service is being adequately provided by carriers.

In recent years, there has been an escalation in the number of witnesses provided by both applicants and objectors. For example, a recent application for an extension of the area covered by an existing "K" authority was supported by 25 shipper witnesses (and opposed by 18 carriers). Since the Board will not accept written evidence in such matters, the process of hearings becomes unnecessarily time consuming and costly. In addition, it appears that the growing complexity of hearings has led the majority of applicants and objectors to be represented by legal counsel. In a recent article, Palmer (1974) quotes the Chairman of the Board's estimate that 75% of all applicants were represented by counsel.

The major issues raised in the hearings concerned the question of rates and quality of service. Carriers with an existing authority attempt to show that the presence of additional capacity which would follow from the granting of a new operating authority would engender an excess capacity situation leading to lower rates and a revenue loss to existing carriers as well as to an overall decrease in the quality of service. Applicants for a licence seek to prove that existing carriers are not providing the requested service adequately and that there is a shortage of capacity in relation to the demand.

The question arises as to how the Board interprets the meaning of public necessity and convenience. According to the Chairman, the Board has a primary obligation to shippers and a ". . .secondary obligation to the suppliers of the said service. . . (although) nothing in the law requires us to protect individuals or companies engaged in the trucking business."[9] The

[8] Select Committee on the Highway Transportation of Goods, Final Report.

[9] Testimony before the Ontario Select Committee on Highway Transportation of Goods, (June 29, 1976).

Board attempts to balance the conflicting objectives of shipper and carrier welfare in the following manner ". . .we cannot deny to our licensees the right to grow but we can and do inject sufficient new entrants into the field to maintain proper balance in favour of the public interest."[10]

It is to be noted that the interests of the general public do not, apparently, explicitly enter into the Board's framework of reference. During the course of this study, we had an opportunity to talk with senior executives of major trade associations, shippers and carriers. The consensus of opinion was that the Board would not look very favourably on an application supported exclusively by witnesses arguing that additional capacity was needed to bring down the existing level of highway carrier rates. Indeed, the Board is not, and has not, seen itself as being an arbiter of whether the rates set by carriers in the face of entry restrictions are in the public interest.

From an economic viewpoint, it is difficult to assess how the Board reconciles its two self-selected criteria of public necessity and convenience: shipper and carrier welfare. The Board is not impelled to give any reason or rationale for its decisions. (Indeed, the Board does not even publish decisions, although they are available for inspection.) In some instances, the Board volunteers written decisions. For the purposes of this study, we would have liked to survey a large number of Board hearings and decisions. Unfortunately, this proved impossible, since the Board requires a payment of $1.25 per page of hearing transcript. Given that many hearings produce transcripts of 50 to 100 pages, the cost involved was prohibitive.

Not all hearings before the Board are open to the public. Section 18a(1) of the *Ontario Highway Transport Board Act* provides for the application of ss4-24 of the *Statutory Powers Procedures Act* to Board hearings. S9 of that Act provides that hearings shall be public unless the matters to be considered are of a confidential or personal nature. A surprisingly high proportion of hearings are in fact held in chambers. In 1976, the Board held 4149 hearings under the *PCV Act*. Of this total, 1411 or 34% were heard in chambers.

The nature of proceedings before the Board together with the large number of objectors have increased the direct cost of hearings for both applicants and objectors. The length and cost of hearings vary greatly from case to case– from as little as a few hours to greater than 30 days. It is not unusual for hearings with reference to licences on high density or highly profitable routes to last 7 or 8 days. For example, "firm Y" applied for an extension to its "K" authority and produced 25 shipper witnesses to give evidence on its behalf and was opposed by 18 carriers. The unsuccessful application cost "firm Y" $20,000 in legal costs and witness expenses. In 1977, 18 carriers applied for a small extension of territory to their class "A" authority, produced 30 shipper witnesses, and were opposed by 16 carriers. The cost to

[10] *Ibid.*

18 applicants was approximately $16,000.

Large carriers operating an extensive route system, or operating on high volume routes, will be faced with a relatively large number of carriers attempting to gain entry. In consequence, such producers can be expected to commit a considerable amount of resources to attempt to forestall entry. Carriers view their operating authorities as valuable property rights. As will be shown in a later section of this paper, the value of operating authorities will be (in part) inversely related to the number of competing carriers. In order to protect the value of licences, carriers will logically – from their viewpoint – commit resources to entry forestalling activity. Palmer (1974) quotes the case of one large company which estimates that 5% of its labour costs is directly related to opposing licence applications. Since labour costs are between 46% to 50% of total operating costs, this implies that 2.3% to 2.5% of total operating costs are expended on attempting to persuade the O.H.T.B. to refuse entry.

The Ontario Select Committee on the Highway Transportation of Goods heard testimony attributing the high cost of proceedings to the following:

i) uncertainty and unpredictability of Board policy;
ii) over reliance on costly counsel in minor matters;
iii) reliance on quantity rather than quality of evidence presented by parties to the Board.
iv) lack of prehearing disclosure of evidence.

In 1976, the Board heard 5664 cases, of which 36% (2042) were heard in chambers. Of the total, 4149 were under the *Public Commercial Vehicles Act,* 581 under the *Public Vehicles Act,* and 934 under the *Motor Vehicle Transport Act.* Thus almost 90% of hearings are concerned with highway freight transportation and 10% with bus and school bus applications.

Very few of the applications – with the exception of those for class "R" (dump truck) licences – are believed to be for new authorities. Most applications are for an extension of existing authorities and/or for the relaxing of restrictions placed on operating authorities. Table 1 gives a statistical breakdown of the disposition of hearings before the Board in 1976. The ratio of refused to total applications is a notoriously poor indicator of whether or not entry is difficult in a *de facto* sense. If entry is perceived to be difficult, many potential entrants will not in fact apply for licences, since they judge their probability of success to be too low in relation to the cost of the application. Thus, approvals as a percentage of applications are biased upwards. In addition, many applications are withdrawn prior to the hearing date, typically because of opposition. Table 1 reveals that withdrawn and refused applications average about 30% of total applications.

A survey of licence authorities shows that, for almost all licence classes, the yearly increase in operating authorities has been very small. As can be seen from Table 2, for the period 1972-75, the number of carriers with

authorities in 7 of the 10 classes actually decreased.[11] However, with the exception of E and FS operations (milk and livestock), the number of vehicles licenced in each class increased, indicating that the average scale of operations increased.

Table 1

DISPOSITION OF HEARINGS BEFORE THE BOARD 1976[1]

Class	Total Applications[2]	% Withdrawn	% Refused[3]	% Withdrawn & Refused
A	156	13.5	18.5	29.5
C	45	17.8	18.9	33.3
D	717	11.3	20	28.2
E	23	4.3	4.5	11.5
F	153	16.3	9.4	24.2
FF	6	71.4	50	85.7
FS	52	17.3	27.9	26.9
H	101	14.9	11.6	24.8
K	30	23.3	21.7	40
R	2423	12.4	13.2	24.9

[1] Not all applications made in 1976 were heard in 1976 and some applications made in 1975 were adjudicated in 1976.

[2] Includes all applications for licences or licence revisions, including temporary operating authorities.

[3] This refers to refusals as a percentage of actual hearings. The total applications were therefore adjusted by the number of withdrawals.

SOURCE: *O.H.T.B. Annual Report 1976.*

5. The Ontario Highway Transport Board

At the end of 1976, the Board consisted of the following 10 members:

E. J. Shoniker, B.A. (Chairman)
G. C. Marrs, B.A. (Vice Chairman)
D. D. Diplock, Q.C. (Vice Chairman)
G. W. Stoddart, B.A.
E. M. Walker, B.M.E.
Vernon H. Page
J. A. Wardrop
R. Rothwell
G. J. Norton
E. A. Winkler

Members of the Board are appointed by the Lieutenant Governor in Council. The number of members of the Board was increased during the 1975-76 operating year from seven to ten. The questionnaire sent to the Board by the O.E.C. requested details of salaries paid to Board members.

[11] Class "R" was excluded because 1975 was the first year it was introduced.

The Chairman of the Board, however, declined to provide this information. Fortunately, the *Public Accounts for the Province of Ontario* lists all salaries to government employees in excess of $25,000. For the fiscal year ended March 31, 1976, the Chairman of the Board received a salary of $40,162, the Vice Chairman $31,525 and ordinary members $26,547.

It is difficult to obtain an accurate estimate of the cost of operating the O.H.T.B. The Board's budget for the fiscal year 1975-76 and 1976-77 (shown below) makes no allowance for costs such as rent, lighting and heating, and cost of publishing hearing notices in the *Ontario Gazette.*

Table 2

CARRIERS LICENCED UNDER THE PUBLIC COMMERCIAL VEHICLE ACT

Class	1955	1960	1965	1970	1971	1972	1973	1974	1975
A	209	183	253	303	308	318	338	357	355
C	536	430	359	190	190	179	176	166	157
D	449	817	999	1162	1177	1190	1240	1322	1185
E	716	667	602	343	315	268	268	233	212
F	4666	5001	5551	5677	6218	5927	6184	6392	6306
FF	–	2	–	27	34	40	29	32	9
FS	354	37	345	320	368	295	274	260	254
H	138	158	187	183	180	172	170	157	154
K	102	145	148	131	130	130	130	136	137
R	–	–	–	–	–	–	–	–	1669
X	147	699	859	941	968	992	1035	1099	1063

SOURCE: Appendix P:

Final Report of the Select Committee of the Legislature on The Highway Transportation of Goods. Between 1968 and 1975, the dump truck sector of the industry was not subject to entry controls.

TABLE 3

O.H.T.B. BUDGET

	1975-76	1976-77
Salaries	$456,900	$583,400
Capital Equipment	–	–
Rent	–	–
Transportation/Communication	6,300	13,600
Temporary Help	1,600	9,100
Professional Services	–	–
Supplies & Equipment	500	1,500
	$465,300	$636,000

The Board receives its funds from allocations made for the Ministry of Transportation and Communications. (In consequence, the operation of the Board is subject to scrutiny by legislative committees.) In 1976, the Board generated a net revenue of $308,209 – most of it from application fees.

There appears to be little direct political control exerted by the government over Board operations. Although the Cabinet is bound to consider appeals from parties concerned with Board decisions, these are rare. The Minister and Cabinet can issue policy statements and directives "as required by changes such as economic, technical and environmental."[12] It is believed that such interventions are rare.

6. The Impact of Regulation on the Ontario For-Hire Trucking Sector

In this section of the paper, we seek to determine the effect of O.H.T.B. regulation on the Ontario trucking industry. It has been shown above that the Board controls entry into the industry but has no control over the level of rates.[13] The only provision with regard to rates is that holders of operating authorities file with the Board a tariff of tolls and must assess transport rates pursuant to the filed tariffs. Amendments can be filed at any time and usually become effective 30 days after filing. In reality, less than 50% of licence holders actually file tariffs with the Board.[14]

All provinces have the authority to regulate both inter and intra-provincial for-hire highway carriers. The degree and type of control exercised varies considerably from province to province. There is a clear distinction to be made between *de jure* and *de facto* regulation. For example, Alberta, typically regarded as a non-regulating province, has the power to control entry but for intra-provincial carriage does not exercise this power.

The following table (Table 4) classifies provinces in terms of the *de facto* regulation of entry and rates for intra-provincial carriage.

[12] Information provided in questionnaire.

[13] Bus express rates must, however, be approved as well as filed.

[14] S29 of Regulation 700 made under the *Public Commercial Vehicles Act*, exempts the following from the payment of filing fees:
- a licensee who is the registered owner of four or less vehicles licensed under the Act, other than the holder of a Class H licence (household goods);
- a licensee engaged solely in the transportation of milk or cream (Class E) or the transportation of livestock, feed, seed, fertilizer and supplies for use in the operation or maintenance of farms only, to or from farms (Class FS);
- a licensee in respect of the transportation of (in other than tank vehicles – Class T): livestock, coal, rough lumber, bricks, tile, cement blocks, cement, cinder blocks, garbage, sand, gravel, rubble, slag, earth, turf or crushed or uncut rock and stone OR materials to stock piles and construction sites for use in construction and maintenance of a highway

In practice, the above licencees are not required to file tariffs. (See *Final Report of the Ontario Select Committee*, IV, 9-14)

Table 4
LEVELS OF PROVINCIAL REGULATION

Province	Entry Control	Rate Filing	Rate Regulation
Nova Scotia	Yes	Yes	No
New Brunswick	Yes	Yes	No
Quebec	Yes	Yes	Yes
Ontario	Yes	Yes	No
Manitoba	Yes	Yes	Yes
Saskatchewan	Yes	Yes	Yes
Alberta	No	No	No
British Columbia	Yes	Yes	Yes

It can be seen that four provinces (Quebec, Manitoba, Saskatchewan, and British Columbia) control both entry and the level of rates, and one province, Alberta, exerts no control over entry or rates. The remainder control entry but not rates. The actual use of entry and rate regulation, where applicable, is not homogeneous across jurisdictions. Quebec, Manitoba, and Saskatchewan tend to control rates in a relatively vigorous manner in comparison with British Columbia. Entry into the industry tends to be more tightly controlled in Quebec and Ontario than in other provinces. It should be borne in mind that the impact of regulation will vary across sectors of the trucking industry in a given province.

It is difficult to determine precisely the degree of entry control imposed by the O.H.T.B. The available data show only the number of operating authorities in each class on a yearly basis together with the number of applications and their disposition. Many of these applications are for an extension or variation of an existing authority. As was shown above, the number of carriers licenced in most categories has actually declined over recent years, while the volume of freight carried by for-hire carriers has increased.[15] During the course of this study, we had an opportunity to talk with senior executives from trade organizations, trucking companies and major shippers. The consensus of opinion was that entry into many categories is relatively difficult, particularly in the case of the Class "A" – general merchandise – operating authorities. The evidence indicates that there are barriers to entry and that for many licence classes these are difficult to overcome.

It should be noted that very few – if any – operating authorities are free of restrictions with respect to routes that can be served and commodities allowed to be carried. Such restrictions have an impact similar to those introduced by entry barriers. In the limit, they negate one of the major advantages of truck transportation over other modes: that of flexibility.

[15] See Transport Canada (1975).

7. The Case for Regulation

As it is typically advanced, the case in favour of regulating the for-hire trucking industry rests on the assertion that without relatively strict entry controls the industry would suffer from "destructive" competition. In this context "destructive" competition means a state of persistent excess capacity leading to rate levels below those required to allow a normal rate of return on capital stock. Those in favour of regulation add second order justifications, for example that regulation of entry promotes safety and ensures that small communities are provided with adequate service. Pro-regulators also posit that restrictions on entry do not increase the overall level of highway carrier rates, although they may lead to cross-subsidization in that rates on some routes and commodities are higher than they would be under a de-regulated system, while rates to small communities are lower than they would be under a de-regulated system.

In 1977, committees of the Alberta and Ontario Legislatures have reported on the regulation of the trucking industry. The committee in Alberta recommended that entry controls not be implemented, while the Ontario Committee recommended that entry controls be continued. The arguments advanced to both groups tended to be very similar.

The major groups favouring entry regulations are the existing licenced carriers and organized labour. The licenced segment of the industry in Ontario supports not only continued regulation of entry but also the implementation of relatively strict rate regulation. Clearly, it is in the economic interest of carriers in possession of operating authorities to wish to restrict entry. It will be argued below that an operating authority is a valuable property right whose worth would be decreased if entry were made easier.

Organized labour favours continued regulation on a number of grounds. First, regulation of the type practiced in Ontario tends (with the possible exception of the Class "R" dump truck sector) to encourage the existence of firms of larger size than would be the case if there were no institutional barriers to entry. A recent report by the Ontario Ministry of Transportation and Communications shows that approximately 60% of the Ontario industry is unionized, with the Teamsters accounting for 90% of the total unionized element.[16] The union membership is heavily concentrated in the large firms, whereas a large proportion of the non-unionized work force is working for small carriers. Thus an increase in the number of small carriers resulting from a loosening of entry controls would have adverse effects on the union's representation in the industry. Second, there is a possibility that the level of real wages in the unionized sector of the industry would come under pressure as a result of de-regulation. If regulation yields carriers an economic

[16] See Phase 1 of Truck Transportation in the Province of Ontario.

rent, a strong labour union is in a far better position to increase its money wage than in the absence of a producer surplus. It has been suggested by Annable (1973) that most of the monopoly profits attributable to regulation of the trucking industry in the United States are appropriated by the International Brotherhood of Teamsters. The data necessary to test this hypothesis for the case of Ontario are not, however, available.

8. The Case for De-regulation

The normal argument advanced by those who wish to see the industry de-regulated is that regulation of entry leads to rates in excess of those which arise in the absence of regulation. In addition, they deny that the industry possesses the necessary prerequisite for the existence of "destructive" competition.

The arguments in favour of de-regulation have in the main been advanced by shippers and the non-licenced sector of the trucking industry. The position of shippers is that entry regulation leads to the existence of monopoly profit levels in the industry and thus to higher shipping costs. They also point to a host of other regulation-induced inefficiencies such as empty back-hauls and the oligopolization of the industry. In Ontario, the Canadian Manufacturers Association and the Canadian Federation of Independent Business were particularly strongly in favour of de-regulation.[17] The Canadian Industrial Traffic League and the Meat Packers Council of Canada both argued for easier entry rather than complete freedom of entry.[18] In Alberta, the Select Committee reported that all users were opposed to entry controls.[19]

9. The Cases Examined

As was shown above, there are two central hypotheses to be evaluated: whether or not the industry, in the absence of entry controls, would be subject to the phenomenon of destructive competiton and whether or not the economic regulation of the trucking industry has led to rates in excess of those which would have been set in the absence of such regulation. (It is to

[17] Submission to the Ontario Select Committee on Highway Transportation of Goods.

[18] *Ibid.*

[19] See Alberta Select Committee, p. 37.

be noted that there is a logical inconsistency in that the proponents of regulation argue that competition would be destructive if regulation were abandoned *and* that regulated carriers are not charging higher rates than non-regulated carriers would.) In addition there are many subsidiary arguments relating to safety, service to small communities and cross-subsidization to be considered.

The destructive competition argument is of course essential to the case in favour of regulation. The operation of the Ontario Highway Transport Board is based on the assumption that without entry controls, the industry *would* degenerate into a state of destructive competition.

Destructive competition is normally taken to mean a situation where, over a long period of time, firms in a competitive industry are only covering variable cost. In the long run, of course, investment in such industries will decline sufficiently to eliminate the excess capacity which yields this situation. In the short run, which may be a very long period of time, the existence of excess capacity implies that capital is not perfectly mobile.

Kahn posits that the necessary conditions for the existence of destructive competition "are fixed or sunk costs that bulk large as a percentage of total costs" and "long sustained recurrent periods of excess capacity". (Kahn, 1972, II, 173). This is most likely to occur in industries where there is a long lag between a rise in price caused by an increase in demand and the consequent outward shift in the supply curve that it engenders. Given the existence of the above ". . . it is competition and a steeply inclined marginal cost function that makes supply inelastic down to the level of each firm's out-of-pocket costs, in the face of declining prices and shrinking profit margins; and it is this inelasticity of supply, in the presence of excess capacity, that makes the industry 'sick'." (Kahn 1972, II, 174). A good example of a sector of the transportation industry that possesses most of these necessary conditions is that of ocean shipping.

The question arises how the above can be considered as reducing consumer welfare. (Almost all forms of competition reduce producer welfare in the sense of limiting the potential for monopoly profits.) In the short run, optimal allocative pricing requires marginal cost pricing so as to use existing resources efficiently and also to signal the appropriate amount of required investment. Kahn suggests that the consumer may be injured if the lack of profits causes the postponement of expenditures that, in the long run, would have benefitted the consumer. An example could be in the case of a coal mine temporarily closed where the discontinuation of pumping causes, in the long run, increased costs. In addition large undamped movements in the price of products produced in such an industry may make it difficult for consumers and producers to make rational forward commitments.

Kahn also notes that, with falling profit margins, the consumer may suffer if the quality of the product declines. This may be especially impor-

tant in areas where safety is important. However, the need – if any – for government regulation motivated by safety considerations must be clearly distinguished from the need for economic regulation.

An examination of the underlying production function of the trucking industry reveals that fixed costs are a very small proportion of total costs. The available evidence indicates that variable costs (labour, fuel and maintenance etc.) are between 80-90% of total costs, with labour accounting for between 40-60% of total costs.[20] In addition, the major portion of the industry's capital stock – trucks – has a relatively short life length.

Of importance to the question of whether entry controls can be considered in any sense desirable from an allocative perspective is the shape of the underlying production function. Specifically, the question arises as to whether or not there are economies of scale in the trucking industry. If economies of scale are large, then this fact *may* justify the existence of regulatory controls on the number of producers entering the industry. Almost all studies of the production function of the trucking industry reveal that economies of scale are either non-existent or very small. The typical view by economists is that it is a classic case of a constant cost industry.[21] Warner (1965), using a 72 firm sample with six time-series observations, arrives at the conclusion that there are small economies of scale. In a recent study, Koenker (1977) re-estimates Warner's equations with different data and concludes that the finding of the existence of scale economies could not be supported. Koenker's results indicate that there are decreasing production costs per unit up to relatively low level of output and that thereafter unit costs increase gradually.

The economic structure of the production function also leads to the hypothesis that the firm's output level can be quickly adjusted to changes in demand. That is, the firm can expand or contract the level of production inputs in a relatively short time period. Given the highly divisible nature of most inputs, this can be accomplished in a continuous manner. In brief, we would not expect to find, in the absence of institutional barriers, that there would be excess capacity or under-capacity except in the very short run.

The conditions on the production side negate the possibility that the

[20] See for example R. K. House and Associates (1974); Ontario Ministry of Transportation and Communications (1975), Canadian Transport Commission (1975).

[21] See Meyer *et al.* (1969), Kahn (1972). Laderson and Stoga (1974) reported the presence of large economies of scale which led them to conclude that the optimal firm size is greater than the existing size of the largest American trucking firm. Their estimation process is, however, faulty in a number of respects. In the regulated U.S. common carrier industry, output should be considered exogenous to firm decisions. Thus the roles of exogenous and endogenous variables are reversed. Laderson and Stoga's model is not tenable, since the necessary conditions on independent errors are violated. In addition, they have not taken into account the part played in determining line haul costs by distance and weight variables. As has been frequently shown, cost per ton mile decreases as both weight and distance travelled increase. In default of an appropriate specification of these variables, the measure of the scale phenomenon is biased upwards.

for-hire trucking industry can be subject to destructive competition. Even given the above, it is sometimes argued that rates may be driven down below an "acceptable" level due to the fact that the production of a haul from A to B necessarily implies the production of a return haul. Since, it is argued, that the costs of the return haul are near zero (they are in fact sunk and have to be incurred whether or not the back-haul is a revenue-producing service), unrestricted competition would produce rates close to zero on the back-haul. Nicholson (1958) poses the question of what will happen if the back-haul of carrier A is the front-haul of carrier B, since competition between them – with both A and B willing to drop rates on their back-hauls – can have the effect of reducing front-haul rates as well as back-haul rates below compensatory levels. The general solution to this problem is of course well known.[22] Joint marginal production costs will be distributed in accordance with demand elasticities in the two markets. With respect to the above example, the traffic flow will determine which haul is "front" and which is "back", and this will, under competition, be the same for both carriers. If aggregate revenues fall below joint costs, then this is a simple case of overcapacity rather than "destructive" or "unhealthy" competition.

The major rationale for regulating entry into the trucking industry rests, as we have shown, on the assumption that in the absence of such regulation the industry would degenerate into a state of destructive competition. It is clear from analysis of the production process that the industry does not possess the prerequisites for such an occurrence. As was shown in an earlier section, the phenomenon of overcapacity and falling rate levels in the 1920's and early 1930's was largely due to the fact that there was a large surplus pool of unemployed labour and used trucks overhanging the market. Since labour had no alternative employment, its supply curve was inelastic or even backward sloping – with labour costs representing the major portion of total variable costs, variable costs were in fact falling as wage rates fell due to the generalized unemployment in the economy. The situation faced by the industry during the depression would have cured itself without the help of regulation as business conditions improved in the economy.

The second major question to be dealt with, that of whether regulation of entry and/or prices leads to higher than optimal rates, is far more difficult to analyze, especially in the Canadian context. Much of the past research has consisted of formulating a pseudo cost function, classifying provinces as regulating and non-regulating and then fitting the cost function to the available aggregate data and hypothesizing that rate differentials not explained by the cost differences are the result of different regulatory environments. Using this approach, Sloss (1970) reported that for the period 1958-1963, regulation led to an upward shift of 0.68 cents per ton mile in intra-provincial

[22] Kahn, pp. 77-83, 1 (1972).

rate levels. Employing similar data and techniques, McLachlan (1972) reported that regulation had increased intra-provincial truck rates by 2½ cents per ton mile.[23] Palmer (1973) introduced some major methodological improvements in the definition and form of the independent variables and found that *de jure* regulation led to an upward rate shift of 1.8 cents per ton mile and *de facto* regulation to an upward shift of 2 cents per ton mile.

The results of Sloss, McLachlan and Palmer – although relatively unanimous – must be treated with some caution. First, the highly aggregative data used in the studies has been reported by Statistics Canada to be of poor quality.[24] (In fact, the entire collection procedure was substantially revised to eliminate errors and biases in the data base used in the three studies.) Second, the classification of provinces into regulating and non-regulating is much more difficult than perceived by the three authors.

The available published data on highway carrier rates can best be termed as inadequate for the purposes of providing a base for testing the hypothesis that regulation leads to an upward shift in rate levels. The diverse nature of trip lengths, shipment weight, and whether the movement is being performed on a high or low density route tends to be masked in an unacceptable manner.

The Ontario Ministry of Transportation and Communications (1975) compared the level of rates in Ontario to those prevailing for similar shipments in Alberta, Saskatchewan, Manitoba and Quebec.[25] For less-than-truckload shipments, the rate in Ontario for class 70 rated traffic based on a distance of 200 miles and a weight range of 500 to 999 lbs., was between 200 and 350 percent of the level prevailing in Manitoba, Saskatchewan and Alberta and 140 percent of the Quebec level. As weight increased to the 5000-9999 lbs. range, the differential fell to 150 to 210 percent of the western rate and was the same as the Quebec rate. Very similar results were obtained for other less-than-truckload rates.[26] For truckload rates, the Ontario rate level was found to be below most, at the level of Alberta rates for commodity rates, and slightly higher than most for truckload class rated traffic. It should be noted that the comparison is based on an extremely small rate sample and should thus be treated with extreme caution. The results do, however, fit in well with the method in which rates and institutional barriers to entry are formed in Ontario. For most less-than-truckload

[23] McLachlan used dummy variables in contrast to the residual analysis employed by Sloss. McLachlan classified Alberta as the only consistently non-regulating province whereas Sloss classified 5 provinces as non-regulating.

[24] See Statistics Canada (1973).

[25] The rates used in the comparison are for February, 1976.

[26] For example, based on a 200 mile trip for class 100 rated traffic, and a weight range of 5000-9999 lbs, the rate in Ontario (in cents per 100 lbs) was 316¢, in Quebec 432¢, in Manitoba 157¢, in Saskatchewan 194¢ and in Alberta 217¢.

shipments in the province, especially over short and medium haul routes, there is little inter-modal competition. We have indicated above that entry into the less-than-truckload common carrier market in Ontario is probably difficult. For truckload movements, shippers typically have recourse to private carriage, rail carriage and pseudo-lease carriage.

Although there are insufficient data to test accurately the hypotheses on rate level shifts caused by entry restrictions, some indirect evidence exists from the market in operating authorities. In Ontario, the holder of an operating authority may, with the consent of the O.H.T.B., have the licence transferred to another party. If entry were perfectly free (in the sense of no regulatory imposed barriers), the net value of an operating authority would be zero. If, however, restrictions on entry lead to an above normal rate of return to the holder of an existing licence, then the capitalized market value of the licence will reflect this fact.

Sources within the industry have frequently argued that a brisk market exists for operating authorities and that these sell for high prices. Two such cases were given in evidence before the Ontario Select Committee. In 1975, Mackinnon Transport Ltd. purchased part of the then Kraus Transport's authority to haul lumber, for a price "in excess of $200,000". Manitoulin Transport Ltd. reported that it had purchased a "D" and "X" licence for $63,000. In its final report, the Select Committee comments that it believes that substantial values are attached to some licences and that there is a market for some of them.

We would hypothesize that the capitalized value of operating authorities is determined by the discounted present value and anticipated above normal (monopoly) profits. In consequence, given demand, we would expect the capitalized value to be higher where entry barriers are highest and inter-modal competition is lowest. It thus becomes rational for carriers to allocate resources in attempting to block the entry of potential competitors.

There is no evidence to suggest – in Canada or in other countries – that de-regulation would lead to an upward rate shift for shippers in small or remote communities. The proregulators assume that, under entry restrictions there is cross-subsidization of service to such locations by above normal profits made on high density routes. Thus, it is argued, since de-regulation would lead to increased competition on highly profitable routes ("cream skimming"), rates on less profitable routes would rise. The evidence before both the Ontario and Alberta Select Committees did not reveal any examples of this alleged cross-subsidization.

The claim that restrictions on entry promote the safer operation of trucks than would occur in the absence of such restrictions is without foundation. It is implied, for example, that, if deregulation were to take place, carriers would not be able (or motivated) in the face of falling profits to properly maintain vehicles. Not only is there no evidence to indicate that

carriers not subject to regulation have more unsafe vehicles than regulated firms, the question of safety laws is quite separate from that of economic regulatory controls.[27] Provinces can and do regulate safety standards in the absence of economic regulatory controls.

10. Time Costs and Benefits of De-regulation

The analysis in the above section has shown that the industry does not possess the necessary prerequisite conditions on the production side to lead to a state of destructive competition in the absence of regulation. In consequence, the argument in favour of regulation is not justified by strictly allocative criteria. If entry is restricted in a *de facto* sense, then – in the absence of price controls – producers who have obtained entry are in the position, given demand and inter-modal competition, to increase rates above what would have been the free market level. This power may be limited by the "Taxation by Regulation" argument whereby carriers on profitable routes are protected from competition in order that they also may provide services on less than profitable routes. It is interesting to note that this form of regulation is *not* practiced in Ontario, at least according to the Chairman of the O.H.T.B.

The system of regulation as practiced in Ontario effectively substitutes the judgement of the Board for that of the market as to how much capacity is required by the shipping public. As such, as long as the Board and market diverge on the interpretation of signals, the regulatory mechanism impedes the flow of resources into the industry and also between sectors of the industry. Thus the Board's activities lead to allocative distortions and distributional effects.

The chief beneficiaries of the regulatory system are the various holders of operating authorities, since they are protected from unrestricted entry. However, not all benefit to the same extent, since entry is more or less tightly restricted across various licence categories and routes. In addition, carriers on high volume, full load, long or medium haul routes may find competition from pseudo-lease operators and rail carriers rendering entry restrictions less important.

It should not be assumed, or even implied, that potential profits from entry restrictions are in fact realized. As long as there is more than a single carrier on a given route, intra-modal competition *may* lead to potential profits being eliminated by downward rate pressure. However, where the number of carriers is small, there is an increased possibility that rates will be

[27] See Kahn (1972) pp. 185-186, for a discussion of this aspect.

set at other than a competitive level. The potential producers' rent may be lost due to operating inefficiencies or to organized labour appropriating the surplus in the form of increased wages. Entry restrictions may induce operating inefficiencies, since pressure on market shares and profits is eliminated. Thus producers may not be better off with entry restrictions than in their absence. Koenker (1977) reports that there have been many recent cases of carriers whose operating licences were sold for large sums, even though the firms were consistently sustaining large losses. Clearly, although Koenker is referring to the U.S. situation, the capitalized value of the licences is determined in part by what an efficient producer would be willing to pay.

The system of entry regulation as practiced in Ontario implies direct and indirect costs to carriers, shippers and the general public. As shown above, the direct net operating costs of the O.H.T.B. rest on the general tax paying public. The cost to carriers of attempting to surmount the entry barriers or of making them effective is relatively large in relation to total operating costs. Carriers concerned with protecting their property rights, in existing operating privileges, from being usurped by new entrants will logically expend resources on doing so until the marginal cost of this activity is equal to the expected gain in marginal revenue. Similarly, potential entrants will allocate resources in an attempt to gain an operating licence up to the point where the expected gain in marginal revenue is equal to the marginal cost. Resources utilized in such endeavours do not contribute to the production of highway transportation services. A producer attempting to block an entrant obtaining operating privileges is seeking to maximize his pecuniary advantage from his licenced activities. As long as entry is not freely available, existing producers can be seen as opposing any decrease of producer rents. An increase in the number of carriers would lead not only to a decrease in the share of rents earned by producers but also to an absolute decrease in the total value of such producer surpluses if prices fall towards the competitive level. The regulatory mechanism in Ontario is thus capable of creating windfall gains and losses in the level of regulatory induced monopoly powers.

Shippers by for-hire highway carriers – and by extension the general public – can be seen to be the major loser under the O.H.T.B. system. Where producers of transport services use resources to restrict entry and thus ensure a price level above the appropriate competitive levels, shippers will be faced wih increased transport costs. This will decrease the typical producers profit maximizing level of output since it represents either an increase in the level of production costs or if the consumer pays such charges directly, a movement along the consumers demand curve. In both cases, the level of output will decrease.[28]

It is frequently alleged that a regulatory induced shift of the rate level

[28] As long as the good is not abnormal.

above the competitive level will lead to an increase in the growth of private trucking.[29] Unfortunately, the available data on the volume of freight transported by producers on their own account are not very detailed. It is believed, however, that private trucking accounts for at least one third of the trucking activity in Ontario.[30] It is normally argued that, in most instances, the production of private trucking services represents a sub-optimal use of resources. For most medium and long haul trips, private carriage suffers a cost disadvantage compared to for-hire carriage mainly because of the absence of full load back-hauls and low average loads.[31] However, if the rate level set by common carriers is above competitive levels, this will lead to the growth of private trucking.

De-regulation of the for-hire trucking industry in Ontario would clearly lead to an outward shift in the industry's supply curve and a consequent decrease in the rate level. The volume of traffic handled by for-hire carriers can be expected to increase for a number of reasons. First, for a wide range of non-bulk commodities, rail and truck transport modes can be assumed to be fairly good substitutes.[32] Thus a decrease in highway carrier rates will cause an inward shift in the demand function facing rail carriers. Second, there will be a shift away from private truck transportation in favour of for-hire carriage. By itself, a lower level of for-hire trucking rates will clearly lead to an increase in quantity being shipped, since shippers will find it profitable to increase output. That is, total production costs faced by shippers would decrease, leading to an increase in the profit maximizing level of output.

In addition to the above, we would expect to see the level of rail rates on a wide variety of commodities and routes to decline. Rail rates are set according to a value-of-service pricing principle. Thus, given demand, rates are determined by the degree of inter-modal competition between road and rail modes. An increase in the level of competition in the Ontario for-hire trucking industry will decrease the ability of rail carriers to discriminate in setting price.

11. Conclusions

It has been shown that the basic premise on which controls on entry into the Ontario for-hire trucking industry rests is without foundation. In con-

[29] See, for example, Ministry of Transportation & Communications (1975).

[30] *Ibid.* See also Transport Canada (1975).

[31] A survey by the Ontario Ministry of Transportation & Communications (1975) suggests that private trucking has a less efficient use of capacity.

[32] In an econometric analysis, Morton (1969) found the cross-elasticity of demand between the two modes to be 0.93.

sequence, de-regulation would not lead to a period of destructive competition. In a recent paper, McLachlan (1971) observes, for example, that the bankruptcy rate in Alberta for-hire trucking industry (where entry is not regulated) is about the same as that in the regulating provinces. In his study of the Australian de-regulation of the motor carrier industry, Joy (1964) states:

> . . .the 'instability' and 'destructive and wasteful' competition so frequently forecast by established road haulage interests as being the inevitable outcome of free entry have not been apparent. Whilst there is an inevitable turnover of haulers, the road haulage industry in its dealings with users is stable and efficient. It is considered that availability of regular service at low cost is a more worthy policy objective than that of 'stability', where that term means a quiet life for established interests.

Many of the effects induced or inspired by the O.H.T.B. regulation of the industry are not quantifiable in any meaningful sense. For example, the numerous restrictions imposed on operating authorities reduce the flexibility of the common carrier system. An operator cannot move equipment out of a market where there is a surplus of capacity to one where there is a shortage, without costly and time-consuming regulatory hearings. Logical route expansions and back-haul possibilities are all made difficult or impossible by entry controls and operating restrictions.

There is no evidence to indicate that cross-subsidization occurs in the for-hire trucking sector. Indeed, given the regulatory structure in Ontario, it would be surprising if it did occur. Even if cross-subsidization did arise as a result of the regulatory system, it cannot be assumed that the effects of such a situation are entirely beneficial. Shippers on profitable routes are charged higher than the optimal price level, and the proceeds are used to set prices at lower than the optimal level on other routes. This is identical to a tax on one set of shippers, with the proceeds used to provide a subsidy to another set. This is of course exceedingly difficult to defend on welfare grounds, since it has both allocative and distributional effects. Because the price on both routes is not the optimal one, shipper volume will be determined by incorrect signals. Such incorrect signals will cause a misallocation of resources.

It must be noted that de-regulation will lead to windfall losses in asset values for existing licenced carriers. The capitalized value of operating authorities will tend towards zero as entry is decontrolled, since carriers presently earning monopoly profits will see them vanish as new entrants shift supply curves outwards. However, these losses are of a purely pecuniary nature.

The control of the entry in the Ontario for-hire trucking industry promotes the inefficient use of resources. In consequence, shippers face a higher than necessary rate level and reduced levels of output. The system of entry controls has created allocative inefficiencies that have a deleterious effect on

the ability of Ontario shippers to produce goods. This effect will be most felt by those producers for whom transportation costs represent a large portion of total production costs.

The question arises whether entry should be decontrolled at a single point in time or phased out over a period of years. Given that capacity adjustments can be accomplished relatively quickly in the industry, there appears to be no gain to be made from de-regulating over a long period of time in comparison with complete de-regulation at a single point in time.

APPENDIX 1
CLASSIFICATION OF LICENCE AUTHORITIES

Class "A" Operating Licence

This authorizes the licencee, as a common carrier, to conduct public commercial vehicle service between places on the King's Highway and other places named in the licence. In effect, this is a general merchandise licence, allowing less than truckload shipments over named routes between specified points.

Class "C" Operating Licence

This authorizes the licencee, as a common carrier, to move goods on a continuous trip

i) from the place or places named in the licence, if the goods are consigned by one consignor to one or more consignees, *or*
ii) to the place or places named in the licence, if the goods are consigned to one consignee.

The class "C" licence places severe restrictions on the numbers of consignors and the consignees who may be involved in the shipments. The "C" licences are typically regarded as full-truck load licences without stop-off privileges.

Class "D" Operating Licence

This permits the holder to transport goods to or from the person named in the licence *or* a service operated exclusively for the movement of a particular type or class of freight named in the licence.

Class "E" Operating Licence

The operator is licenced to transport milk or cream. Many of the regulations governing this type of movement are given in the Milk Act (RSO 1970, Ch. 273)

Class "F" Operating Licence

The holder is authorized to transport exclusively:

i) livestock, coal, rough lumber, bricks, cement, cinder blocks, garbage and turf or such of them as are named in the licence
and
ii) such other material (excluding those specified under class "R") as are named in the licence for use only in road construction and maintenance and only when carried to stockpiles and construction sites, but not liquid or viscous material carried by a tank truck or tank trailer designed for the purpose.

Class "FS" Operating Licence

This licence is exclusively for the transportation of livestock, feed, seed, fertilizer and supplies for use in the operation and maintenance of farms only, or such of them as may be named in the licence, to or from farms within the area defined in the licence.

Class "FF" Operating Licence

The licence authorizes the holder to operate as a freight forwarder. This licence generally restricts the operation to an urban zone. No holder of an "FF" licence can hold any other class of operating licence.

Class "H" Operating Licence

This licence class authorizes the holder to conduct a general moving business for uncrated, new and used household furniture, office furniture etc., and such items as objects of art etc. which, because of the nature of the value, require specialized handling. Special loading devices, other than powered tailgates, are prohibited. This licence is directed toward service to the general public rather than the commercial shippers.

Class "K" Operating Licence

This licence authorizes the holder to transport exclusively heavy duty machinery, boilers, transformers and similar equipment that require special loading devices and cannot be carried on a standard truck, trailer or semi-trailer.

Class "L" Operating Licence

This allows the carriage of goods in bond through New York State between the states of Michigan and New York on prescribed routes.

Class "R" Operating Licence

This authorizes the licencee to conduct a commercial transportation service, other than by tank truck or tank trailer, exclusively of:

i) sand, gravel, earth crushed or uncut rock and stone, asphalt mixes, slag, rubble and

ii) salt, calcium chloride, a mixture of sand and salt and asphalt mixes directly to highway construction or maintenance sites or to stock-piles for further use on highway construction or maintenance sites. The class "R" licence also specifies the regions within which the licence is valid. All restrictions on other licence classes are written in terms of routes, shippers or commodities.

Class "T" Licence

Authorizes the holder to conduct transportation of bulk commodities in a tank vehicle.

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The Regulation of Communications in Canada[1]

Douglas G. Hartle

Introduction

The communications and transportation industries have much in common. Transportation slowly moves tangible things between points in space. Communications move intangible things (such as words, numbers, sounds and pictures) between points in space with, to all intents and purposes, no time lag. But both require something to carry; both require loading; both require a means of conveyance and both require off loading at some chosen destination. Furthermore, both share the characteristic that the means of conveyance, whether it be the railway tracks or the highways in the case of transportation or the airwaves, wires or cables in the case of communications, are, in many respects, inherent monopolies. It would be nonsensical to have dozens of parallel rail tracks or roads just as it would make no sense to have dozens of underutilized parallel telephone wires or cables, unless they were virtually costless. (For one thing, the utility of a telephone increases as the number of interconnected subscribers increases.) Moreover, in the case of communications, the capacity of the airwaves is limited so that some form of rationing is required. The usefulness of the resource would be destroyed if so many signals were broadcast that nothing but "noise" could be heard.

In short, both transportation and communication are natural monopolies in several vital respects and some kind of public regulation is inescapable. The form that such public involvement should take is highly disputatious but

[1]The author wishes to acknowledge with gratitude the assistance and advice provided by many individuals representing virtually all sectors of the industry and the government agencies concerned. None will find all of the study to their liking. But then, had they not helped they would have found even more of it unacceptable!

that the public should exercise some kind of control, at least in some areas of communications, is surely beyond dispute.

Having proclaimed the necessity for some kind of government regulation or ownership in some areas of communications, it is also important to recognize that all aspects of communications are not natural monopolies. While it would be naive to suppose that pure and perfect competition (in the textbook sense) has a large role to play in Canadian communications, it is the author's view that even limited and imperfect competition in any industry is better than no competition at all and should be carefully nurtured where any fissure in the rock that constitutes a natural monopoly can be found. As will be explained later, such competition can yield vital information for a regulatory body that is otherwise solely dependent upon information provided by the regulatee. Wholly one-sided information in what must be an adversarial process is, by definition biased – if only unconsciously. How does one know one is self indulgent without experiencing the rigours of hardship?

One of the recurrent themes of this paper is, therefore, the desirability of pursuing competitive policies whenever feasible in the full recognition of the fact that the scope for competition is painfully narrow.

The purpose of this paper is to examine critically some of the policy issues in the regulation of the communications industry. The reader is warned at the outset that the issues involved are complex because of the inescapable amalgam of technical, economic, political and cultural issues that impinge on the communications industry. This industry is fascinating because it is so complex: its analysis is frustrating because it raises a multitude of questions to which there are no ready answers.

1. Background

It is assumed that the reader is familiar with the basic characteristics of the several modes of communications. But it may be useful to discuss a few technical highlights that are germane to the issues to be discussed.

1.1 MEASURING CAPACITY

One aspect of the communications industry that is rather confusing to the layman (at least it was to the author!) is the relative carrying capacity requirements of different kinds of communications, particularly because industry terminology is often inconsistent. Figure 1 attempts to clarify what is involved. As the common unit of measurement the carrying capacity

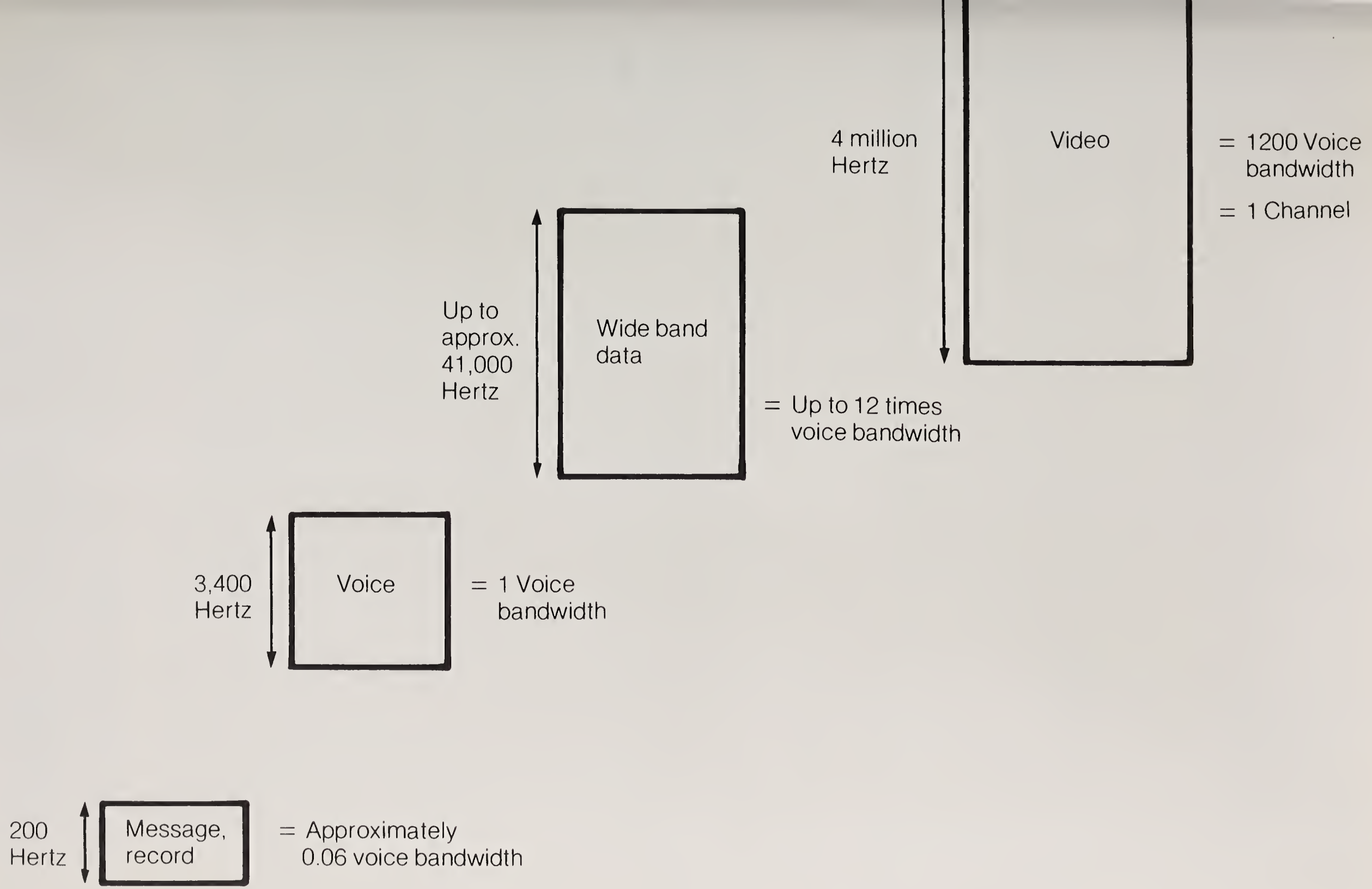


Figure 1: Frequency Required of Alternative Kinds of Communications

required for a voice message is employed. Others are possible, as is immediately apparent. The figure is not drawn to scale for obvious reasons.

The enormous differences in frequency requirements for different kinds of transmissions are evident from the fact that, in theory, although not quite so in practice, a message/record transmission (e.g. a telegram or Telex-TWX message) requires only about 1/40,000th of the capacity needed for a TV transmission!

Perhaps two observations might be made at this point. "Wideband data" is involved in a large number of different applications of which inter-computer communications are a typical and important example. Such communications require a wider than voice bandwidth because of the high speeds at which the data are transmitted in order to utilize the enormous capacities of the sending-receiving processing equipment involved.

It is also important to recognize that a typical TV coaxial cable has a capacity to carry over thirty TV channels – the equivalent of 36,000 voice telephone bandwidths.

1.2 THE TELEPHONE

The distinguishing characteristic of the telephone for our purposes is that, in a local area, using pairs of copper wires connecting each subscriber to an exchange where expensive switching equipment is located, it is possible for two particular users to send messages to each other simultaneously. Of particular importance in differentiating the telephone from the other modes is its capacity to allow a particular sender to address a particular receiver uniquely. The limitation of the current local telephone system is that the paired wires connecting each user to an exchange have a lower capacity to carry information than the coaxial cables now used for cable television or, in particular, the optical fibre cables that have recently been developed (as discussed below).

Long distance telephone messages are made by connecting telephone exchanges in different local areas by a microwave system (a form of radio transmission) or by various techniques using different kinds of cables or by satellites or some mixture of these means of transmission. Each of the major telephone systems (including provincial telephone systems) own the microwave facilities in their respective geographic jurisdictions and coordinate their use through an informal organization called the Trans Canada Telephone System (also discussed below).

1.3 RADIO AND TELEVISION

The predominant features of these two modes are so well known that a description is hardly necessary. But it is important to remember that in

neither case can the messages be directed to a single receiver (except by a filtering process necessary for pay TV). The word "broadcast" says it all. Another important technical feature is that the airwaves have a finite capacity for carrying broadcast signals. Some form of rationing is therefore necessary, as already mentioned.

1.4 MESSAGE/RECORD

The use of the public telegraph has declined steadily since the advent of the long distance telephone call available at relatively modest cost. Moreover, the original technology that employed a copper wire connecting sender and receiver has been replaced almost completely by a separate microwave system that connects the central exchange(s) in each of the major urban centres to each other, and these central exchanges are also connected by paired cables[2] to a number of branch facilities located in the centre's area. The user's then receive and send their messages through paired wires that connect each of them to the nearest local branch facility.

Like the telephone, message/record systems allow the addressing of messages from a particular sender to a particular receiver (that is to say switching equipment is required). Unlike the telephone, such systems only transmit information in alphabetic or numeric form but do provide a permanent record of the message – a feature that is of considerable importance in some circumstances. Also, unlike the telephone, such messages cannot be sent in both directions simultaneously. They are sequential.

1.5 WIDEBAND

Microwave systems have many channels and therefore have capacity far in excess of that required for any conceivable message/record system. They can and are also used for the transmission of voice, video and wideband data. Though the input and output equipment are different from that used by message/record systems, as discussed above, the basic process is the same except that the connection between each of the local terminals and the transmitter usually requires a coaxial cable rather than the paired copper wires that are more than adequate for message/record transmissions.

1.6 CABLE TV

The paired copper wires that connect each subscriber to the local telephone exchange do not have anywhere near the capacity to carry video

[2]These paired cables sometimes are owned by the telephone companies as are the local loops that connect individual subscribers to the branches.

signals, as the information provided in Figure I makes abundantly clear. That fact, plus the enormous cost or technical impossibility of each household installing and connecting to the most sensitive of antennae on the highest point in the region, has led to the development of cable television networks. For an installation charge and the payment of a monthly fee the subscriber obtains clearer television reception and access to more television channels than otherwise would be the case.

Typically, a cable television company installs one or more antennae (some are directional) at a high point in the region. The signals so received are transmitted by microwave or coaxial cable to the geographic area assigned to the company. The signals so received are converted to a form appropriate for household reception and then are boosted by amplifiers and sent to subscribers by means of special coaxial cables that usually are attached to existing telephone poles or are run through conduits owned by the telephone companies. Often, but to a decreasing extent, the telephone companies own the coaxial cables and lease them to the cable companies under contract (usually for ten years). This situation is likely to alter as a result of a recent CRTC decision that would permit the cable companies to own all of the facilities and use telephone company poles and conduits for a fee.[3]

1.7 SOME TECHNICAL INNOVATIONS

There are at least five major technical innovations that are now having, or are likely to have, a major impact on telecommunications in Canada within the next decade:

1. digital transmission
2. time division multiplexing
3. optical fibre cable
4. satellites
5. reception terminals

Each of these will first be discussed in isolation from the others without taking into account their economic-political implications. These matters will be dealt with later.

Digital Transmission It is useful to think first of an analogue (e.g. voice) telecommunications signal as a graph portrayed on an oscilloscope – a device that converts signals to a two dimensional, ever changing picture. Around a stationary base line (the frequency) there is another line that rises and falls

[3] In Manitoba the trend may be the other way. The CRTC has approved the application of Manitoba Telephone requesting permission for it to be able to acquire the basic hardware (other than household drops) used in cable TV in that province. The issue is unclear at the time of writing because the newly elected government seems to be opposed to this approach.

as the message conveys high and low pitches and tones plus the speed of transmission. That is to say: the fluctuations of the transmitted signal around the base line can be wide or narrow (bandwidth), they can be of short or long cycle, or they can be smooth or irregular.

When such a signal is fed into a wire some of its initial strength and fidelity are lost as the length of the wire increases. Amplifiers are required to push the signal through the wire to give the needed strength for reception. However, these amplifiers also distort the signal so that more fidelity is lost. The basic idea of digital transmission is to translate the message being conveyed by an erratic wave line into a sequence of pulses and non-pulses that, by their number, spacing, and speed, convey, when appropriately translated, the same information fed into the system. By this conversion, it is possible to design amplifiers and receivers that differentiate between the pulses and non-pulses and thereby both correct the distortion and push the message along with its original clarity. This gain in fidelity is particularly important where computer type communications are concerned, for an error in receiving a pulse or a non-pulse can completely ruin the whole transmission. Moreover, the bandwidth required to convey pulses, and non-pulses is much narrower than that required for the transmission of a voice or a picture in analogue form so that the capacity of a given transmission facility is greatly increased.

Time Division Multiplexing If one can think of digitalization as greatly narrowing the fluctuations of a wave while maintaining the information it contains, time multiplexing can be thought of as a compression of the waves with respect to time. By packing the pulses and non-pulses more closely together, a given transmission facility can be used to push more of them through it per unit of time without loss of fidelity.

Optical Fibre Cable Heretofore, messages have been transmitted either through the airwaves or by copper wire. A major innovation has been the discovery that optical fibres (glass strands) can convey more signals over the same distance with less distortion and at *potentially* less cost per message than either the airwaves or copper wires.

The relationships among these three innovations are exceedingly complex. In essence the situation is roughly as follows: digitalization and multiplexing greatly increase the capacity of a given pair of copper wires to carry information but at the high capital cost of installing elaborate, electronic "black boxes" to transform and compact it. On the other hand, it is quite possible that optical fibre cable may become so cheap within a decade that it would be more economical to provide grossly excessive but relatively inexpensive cable capacity and use it inefficiently (from a technological point of view) than to provide a minimal transmission capacity (e.g. paired copper wires) and exploit it to the full (also from a technological point of view) with expensive black boxes.

Satellites A recent and potentially important development is the satellite – an object containing receiving and transmitting equipment that, when successfully launched into space, hovers twenty-five thousand miles over an assigned geographic area. In a crude way it can be considered as a microwave station located at the top of a tower many miles high. Such height gives the satellite an enormous range and is particularly useful in providing video reception in distant and sparsely populated areas – in particular the Canadian North.

An important aspect of the cost of satellite transmission is that of the ground stations required. Because they are, in effect, long-range relay stations, messages have to be converted to the requisite form for transmission to the satellite and received and converted to a form suitable for telephone and other kinds of terminals. Without ground stations the satellite's messages would be relayed to a void. The cost of these ground stations is gradually declining and is now approaching $50,000 each (needless to say, the cost of a satellite transmission, as such, is independent of the number of ground stations and, within wide limits, the distance between sending and receiving stations).

At the present time there are three Canadian satellites in operation and they have a capacity of about 20 to 30 channels, although a relatively small fraction of this capacity is in actual use. Other more sophisticated satellites, embodying important modifications, are planned. The controversial regulatory issues involved are discussed later in a separate section.

Receving Terminals There are many new terminals (receiving devices) coming on the market. They include such items as video recording that permits the capture, retention and freedom of time playback such that video signals broadcast during the off peak hours can be watched at pleasure later when broadcasting facilities are being used to capacity. There are a multitude of others, including a device that captures for the viewer a particular frame on an educational program for in-depth examination.

1.8 SUBSTITUTABILITY AND COMPLEMENTARITY

Leaving aside for the moment the question of cost, the largely impressionistic data given in the matrix provided below (Table I) attempts to capture the *technical* relationships among the various media in terms of complementarities (C), substitutabilities (S), independence (O) and uncertainties (?).

This tableau seeks to make clear that there are a few areas of considerable uncertainty, particularly with respect to cable TV, and that there are areas of complementarity where the issues are largely the terms and conditions under which services are provided by one sector of telecom-

munications to another. In addition, there are areas of substitutability where competition exists or might exist if there were changes in demand, technology, or regulations.

TABLE I

TECHNICAL SUBSTITUTABILITIES AND COMPLEMENTARITIES AMONG MEDIA*

	Public				Private		
	Telephone		Radio	T.V.			
	Local	L.D.			M/R	WB.	CA T.V.
Local Tel.	X	O	O	O	S	O	?
LD telephone	O	X	S	O	S^+	S^+	O
Radio	O	S	X	S+	O	O	S+
T.V.	O	O	S+	X	O	O	C+?
Message/Record	S	S+	O	O	X	S+	O
Wide Band	O	S+	O	O	S+	X	O
Cable TV	?	O	S+	C+?	O	O	X

*The substitutabilities and complementarities with respect to transmission facilities (e.g. wideband use of local telephone loops) are ignored.

The relationship between local telephone facilities and TV cable is uncertain because, it is unclear at this point, the degree to which cable will *eventually* become a substitute for or a complement to the existing telephone service. It is now technically possible through filtering or other devices to restrict cable transmission to designated subscribers (the necessary requirement for pay T.V.). It is also technically possible to install equipment permitting bi-directional transmissions on T.V. cables. When coupled with extremely expensive switching equipment, coaxial T.V. cables would thus become a substitute for the conventional telephone but with much greater channel capacity. The issue here is whether or not TV cable networks would have their own switching equipment or existing telephone switching equipment would be enormously upgraded in capacity and the existing cables (or fibre optic cables) connected to it, thus displacing the paired copper wire lines now used in telephony.

Such a switched, bi-directional system, if put in place, would result in what has been called a "wired city" – a city in which the resident could receive *and* transmit signals that would encompass radio, video, and alphanumeric information.

By using microwave systems (such as those now owned by the Trans

Canada Telephone System and by CN/CP Telecommunications) or a satellite (such as that provided by Telsat) such a "wired city" could be tied to all other urban centres with the same type of facilities and would technically carry all existing long-distance telephone services, message/record services, wideband services, and two-way addressed video services.

For reasons that are discussed in some detail later, it seems most unlikely that such a "wired city" will be with us for many years – not because of its technical impossibility but because of the enormous costs involved relative to the seemingly modest benefits obtained.

What does seem of crucial importance in the years immediately ahead is the extraordinarily complex interplay among:

(1) changes in industry structure;
(2) technological developments and their effects on relative costs;
(3) regulations and their impact on the former and on the rate of introduction of the latter.

1.9 MARKET PENETRATION

Over 90 percent of Canadians have radio-T.V. coverage, over 40 percent have a cable T.V. connection and there are about 57 telephones per 100 of population in Canada as compared with about 70 telephones per 100 of population in the United States (the highest rate in the world). Given the enormous distances in Canada and our low population density, we have little to complain about *quantitatively* where communications are concerned.

1.10 INDUSTRY STRUCTURE

The communications industry consists essentially of telephone companies, broadcasting companies, cable TV companies and that unique creature – CN/CP Telecommunications – which is an outgrowth of the two, now virtually defunct, railway telegraph systems.

The basic data with respect to the more important telephone companies is provided in Table II on the following pages.

TABLE II

SUMMARY OF TEN LARGEST CANADIAN TELEPHONE COMPANIES

1. *Bell Canada* (unconsolidated)
   a) Size: 59.9% of Canadian telephones (68.2% including subsidiaries)
      1976 Revenue $1,904 million
      Assets $5,908 million

b) Ownership: 225,457 shareholders (97.4% Canadian owned)
c) Regulation: CRTC (Canadian Radio-television and Telecommunication Commission)
d) Incorporation: Federal
e) Operating Area: Ontario, Quebec and Eastern Arctic

2. *British Columbia Telephone Company*
   a) 11.2% of Canadian telephones
      1976 Revenue $436 million
      Assets $1,471 million
   b) Ownership: 50.7% indirectly owned by General Telephone and Electronics Corporation, through Anglo-Canadian Telephone
   c) Regulation: CRTC
   d) Incorporation: Federal
   e) Operating Area: British Columbia

3. *Alberta Government Telephone*
   a) Size: 6.2% of Canadian telephones
      1975 Revenue $310 million
      Assets $1,112 million
   b) Ownership: Alberta Government (100%)
   c) Regulation: Alberta Public Utilities Board
   d) Incorporation: Provincial
   e) Operating Area: Alberta with the exception of Edmonton

4. *Manitoba Telephone System*
   a) 4.3% of Canadian telephones
      1976 Revenue $110 million
      Assets $371 million
   b) Ownership: Manitoba Telephone (100%)
   c) Regulation: Manitoba Public Utilities Board
   d) Incorporation: Provincial
   e) Operating Area: Manitoba

5. *Saskatchewan Telecommunications*
   a) Size: 3.3% of Canadian telephones
   b) Ownership: Saskatchewan Government (100%)
   c) Regulation: Cabinet appointed Board of Directors: the Minister of Telephones; a Standing Committee of the Saskatchewan Legislature
   d) Incorporation: Provincial
   e) Operating Area: Saskatchewan

6. *Maritime Telegraph & Telephone Co. Ltd.*
   a) Size: 3.0% of Canadian telephones (3.4% with subsidiary)
      1976 Revenue $112 million
      Assets: $359 million*
   b) Ownership: 41.0% by Bell Canada
   c) Regulation: Nova Scotia Board of Commissioners of Public Utilities
   d) Incorporation: Provincial
   e) Operating Area: Nova Scotia

7. *New Brunswick Telephone Co. Ltd.*
   a) Size: 2.5% of Canadian telephones
      1976 Revenue $93 million
      Assets: $292 million
   b) Ownership: 41% by Bell Canada*
   c) Regulation: New Brunswick Board of Commissioners of Public Utilities
   d) Incorporation: Provincial
   e) Operating Area: New Brunswick

8. *Edmonton Telephones*
   a) Size: 2.5% of Canadian telephones
      1972 Revenue $24 million
      Assets $113 million
   b) Ownership: City of Edmonton
   c) Regulation: Elected representatives of the City of Edmonton
   d) Incorporation: Provincial
   e) Operating Area: Edmonton

9. *Quebec Telephone*
   a) Size: 1.7% of Canadian telephones
      1976 Revenue $65 million
      Assets: $223 million
   b) Ownership: 56.75% indirectly by General Telephone and Electronics Corporation through the Anglo-Canadian Telephone Company
   c) Regulation: Public Service Board of Quebec
   d) Incorporation: Provincial
   e) Operating Area: Southern Newfoundland and Labrador (except Labrador City)

Note: The above 10 companies account for about 96% of Canadian telephones. The CRTC thus regulates about 71.7% of all Canadian telephones mainly in Ontario and Quebec.

SOURCE: A. E. Ames & Co. Ltd.: "Bell Canada and the Canadian Telecommunications Industry", May 1977. Some data have been updated (courtesy Bell Canada) where indicated by*.

TABLE III

ORIGINATING STATIONS BY PROVINCE, TYPE, 1976

	Type				
Province	AM	FM	TV	SW	Total
Newfoundland	24	2			
Prince Edward Island	4				5
Nova Scotia	20	5	5	2	32
New Brunswick	16	1	4	1	22
Quebec	77	19	22		118
Ontario	97	39	27		163
Manitoba	18	6	6		30
Saskatchewan	20	5	8		33
Alberta	31	7	12		50
British Columbia	53	11	9		73
Yukon Territories	2		1		3
Northwest Territories	6	7			13
Total	368	102	102	3	575

SOURCE: CRTC *Annual Reports 1975-1976*

There is a remarkable difference between the structures of the telephone and broadcasting aspects of the industry. Ten telephone companies completely dominate the field. As shown by the data given in Table III, broadcasting is characterized by a multiplicity of enterprises. But both are similar with respect to ownership. Telephony is a mixture of public and private ownership and so is broadcasting. With a few notable exceptions (e.g. B.C. Telephone and Canadian Marconi) foreign ownership is not an issue in either case. Virtually all broadcasting is federally regulated.

Cable TV has more in common with broadcasting than with telephony in terms of the number of enterprises for, in 1975, as shown by the data given in Table IV, there were nearly 400 of them in 1975. But, like the telephone companies, each cable company has an absolute monopoly within its assigned geographic area. Unlike the other two branches of the industry, ownership is almost entirely private. Saskatchewan is an exception. The

provincially owned telephone system also owns a cable TV company. Like in the other two sectors, foreign ownership is not a significant factor in the cable sector. For reasons to be discussed later, cable TV is federally regulated.

TABLE IV

CABLE TELEVISION UNDERTAKINGS IN CANADA, 1970-1975

Province	1970	1971	1972	1973	1974	1975
Newfoundland	1	1	1	1	1	1
Prince Edward Island						2
Nova Scotia	2	4	6	6		
New Brunswick	6	8	8	8	12	14
Quebec	116	135	143	143	147	141
Ontario	107	106	109	113	115	121
Manitoba	4	6	6	6	6	6
Saskatchewan	3	4	5	5	5	4
Alberta	7	16	16	18	18	20
British Columbia	61	61	64	63	64	66
Yukon Territories		1	1	1	1	1
Northwest Territories				1	1	1
Canada	307	342	360	365	387	398

SOURCE: CRTC *Annual Reports*

CN/CP Telecommunications is unique in that it offers a wide range of telecommunications services provided jointly by a federally owned corporation (CN) and a shareholder owned corporation (CP).[4] To some limited extent they also serve different markets. CN, for example, provides public telephone service in parts of the Yukon and in Newfoundland and other remote places. CN/CP is federally regulated.

One aspect of the organization of communications in Canada deserves separate comment. As mentioned previously, the Trans Canada Telephone System is an informal group that includes all of the major telephone utilities.

[4] As discussed later, most of the services provided by CN/CP are also provided by the telephone companies. Leaving aside questions of price and quality of service, the telephone companies now have an advantage in that their competitive services are tied into the public telephone systems and those of CN/CP are not.

This organization, in effect, coordinates the long distance services of the disparate members and, on the basis of consensus, resolves the conflicts that arise between the interests of each of the major telephone systems on the one hand and their collective interest on the other. That this is accomplished despite the fact that some of the member organizations are privately owned, some publicly owned and that some are federally regulated while others are provincially regulated makes its existence and apparent success all the more remarkable. It is widely believed that the TCTS is dominated by Bell and that the members have been able to agree so readily because all of them have a shared desire to maximize the revenues from the toll service they collectively provide.

There are in this industry, as in almost all others, lobby groups. They are: the Canadian Telecommunication Carriers Association (essentially telephones and CN/CP), the Canadian Association of Broadcasters and the Canadian Cable Television Association. All of them have their principal offices in Ottawa.

2. The Regulation of Communications — The Constitutional Position

With few exceptions, the regulation of communications is exclusively within the jurisdiction of the federal government. This situation has resulted from judicial interpretation of sections 91 and 92 of the British North America Act (1867), 30 and 31 Vict., c. 3 as am (U.K.), which laid the framework for the division of powers between the provincial and federal governments.

2.1 TELEPHONES

The regulation of telephone communications in Canada is divided between the federal and provincial governments. As will be seen, the constitutional basis for provincial regulation, although as yet unchallenged, is questionable.

The Bell Telephone Co. operates in Ontario, Quebec and the North-West Territories. It was incorporated by a special federal statute (S.C. 1880, c. 67; 1948, c. 81; 1967-68, c. 48) in order to inter alia, "build, establish, maintain and operate, in Canada or elsewhere" a system of telephone communications (s. 5(1)). The constitutional position was clearly enunciated by the Judicial Committee of the Privy Council in *Corporation of the City of Toronto* vs. *Bell Telephone Co. of Canada*, (1905) A.C. 52. In that case, the Province of

Ontario passed an Act which purported to regulate certain activities of "Bell". Section 92 (10) (a) of the BNA Act specifically excludes from provincial control "lines of Steam or other Ships, Railways, Canals, Telegraphs, and other works and Undertakings connecting the Province with any other or others of the Provinces, or extending beyond the Limits of the Province". Based on this, Lord MacNaughten had the following to say (at p. 57 of the decision):

> "It can hardly be disputed that a telephone company the objects of which as defined by its Act of incorporation contemplate extension beyond the limits of one province is just as much within the express exception as a telegraph company with like powers of extension . . . no provincial legislature was or is competent to interfere with its operations, as authorized by the Parliament of Canada".

Section 92 (10) (c) of the BNA Act further excludes from provincial jurisdictions "Such works as, although wholly situate within the Province, are before or after their Execution declared by the Parliament of Canada to be for the general advantage of Canada or for the advantage of two or more of the Provinces". In 1882, Parliament declared the Bell Telephone Co. to be a work for the general advantage of Canada. In light of the foregoing, this added source of jurisdiction is probably superfluous.

A further illustration of federal jurisdiction in this field is the decision in *Commission du Salaire Minimum* vs. *Bell Telephone Co. of Canada,* (1966) S.C.R. 767, in which the Supreme Court held that a provincial Minimum Wage Act could have no application to employees of Bell Telephone since such matters fall within the exclusive jurisdiction of Parliament under s. 92 (10) (a).

It is important to note, however, that the federal government has not attempted to regulate provincially owned or provincially incorporated telephone companies except in one respect. The toll rates charged for interprovincial telephone calls are approved by the CRTC to all intents and purposes on the recommendations of the Trans Canada Telephone System. The foregoing described telephone utilities are members of the TCTS.

Apart from Bell Canada and British Columbia Telephone, telephone systems tend to fall under provincial regulatory jurisdiction. In Ontario, these systems are controlled and regulated by the Ontario Telephone Service Commission (established by the *Telephone Act*, R.S.O. 1970, c. 457. See also, *The Ontario Telephone Development Corporation Act*, R.S.O. 1970 c. 330.). These "provincial" telephone systems are of course linked physically to the Bell system and, therefore, if constitutionally challenged, it seems likely that such systems would be viewed as part of an interconnecting work or undertaking under federal jurisdiction. The federal government, however,

seems content to allow provincial regulation of these systems and a challenge to the constitutionality of provincial regulation seems unlikely.

2.2 RADIO

While radio stations (as well as television stations) generally tend to be incorporated provincially, they are clearly subject to the regulatory control of the federal government. That the federal Parliament has exclusive legislative power over radio communications was settled by the Judicial Committee of the Privy Council in Re Regulation and Control of Radio Communication, (1932) A.C. 304. In that case, three alternative grounds were postulated to justify the federal power. Firstly, it was held that since radio communication was a matter of such importance that it affected the body politics of Canada, Parliament would have exclusive jurisdiction by virtue of the federal power "to make laws for the peace, order, and good Government of Canada" (BNA Act, s. 91). Secondly, under s. 132 of the BNA Act, the Federal government was given power to perform the obligations of Canada arising under treaties between the British Empire and Foreign Countries. Canada was a party to the International Radio Telegraph Convention (1927) and although this was not a British Empire treaty, it was held that such international pacts amounted to the same thing. As such a finding seemed to fulfill the intention of the framers of the BNA Act the Federal jurisdiction could therefore be justified under the power to make laws "for peace, order and good government". As was said by Viscount Dunedin (at p. 313 of the decision):

> "It is Canada as a whole which is amenable to the other powers for the proper carrying out of the convention; and to prevent individuals in Canada infringing the stipulations of the convention it is necessary that the Dominion should pass legislation which should apply to all the dwellers in Canada."

Thirdly, the federal power was justified under Section 92 (10) (a) as a "telegraph" line connecting the Province with other Provinces and extending beyond the limits of the Province". The Privy Council defined "telegraph" as (at p. 316) "An apparatus for transmitting messages to a distance, usually by signs of some kind" and on this basis held that radio communications were an interconnecting undertaking under exclusive federal jurisdiction.

The question of the control and regulation of the intellectual content of radio broadcasts was not squarely faced in the above decision. It remained unresolved until the 1973 decision of the Ontario Court of Appeal in *RE C.F.R.B. and the Attorney-General of Canada, (1973)* 3. O.R. 819; (1974),

38 D.L.R. (3d) 335, which effectively declared that federal jurisdiction extended beyond control of the "carrier" system alone. Based on the power to make laws for "the peace, order and good government of Canada", it was held that the federal government had jurisdiction over the regulation of the intellectual content of radio communications (See the *Broadcasting Act*, R.S.C. 1970, c.b-11).

It should be noted, however, that s. 93 of the BNA Act gives the provinces exclusive jurisdiction over education and that, therefore, in this one area the provinces will likely have some control over intellectual content. This potential conflict has yet to be resolved.

2.3 TELEVISION

Television broadcasting involves the transmission of signals through the air by means of Hertizian waves. It is, therefore, an undertaking identical in principal to radio broadcasting and, therefore, on the basis of what has already been said in that context, the jurisdiction to control and regulate television broadcasting is exclusively federal.

As has been mentioned, the provinces retain exclusive jurisdiction over education. On this basis, Ontario has established the Ontario Educational Communications Authority to develop and administer an educational T.V. and radio system. While still subject to federal regulatory control (over frequencies, power levels, etc,) the control of program content would fall to the province as part of its jurisdiction over education. The intellectual content of commercial television would seem, as in the case of radio, to fall under the jurisdiction of the federal government.

2.4 SATELLITES

The control and regulation of satellites are exclusively within federal jurisdiction. As a form of microwave communications, they clearly fall within the ambit of the "Radio Case". Alternately, they can clearly be justified as being matters in the national interest permitting the use of the federal power to legislate for "the peace, order and good government" of Canada.

2.5 CABLE TELEVISION

The typical cable television network, that is one which receives T.V. signals at a community T.V. antenna and then transmits these by means of coaxial cables to public subscribers, falls under federal jurisdiction.

Two recent decisions of the Supreme Court of Canada, which are cited below, finally settled the matter, at least in a legal sense. Because of the controversy the precedents are particularly important and are now reviewed. To quote from the headnote of the British Columbia Court of Appeal's decision in *RE P.U.C. & Victoria Cablevision Ltd.* (1965), 51 D.L.R. (2d) 716:

> "In receiving signals or programs by means of antennae from broadcasting stations and in relaying them to their paying subscribers by cable, these land stations constitute a single integrated undertaking falling within exclusive Federal jurisdiction and it cannot be said that a separate and distinct business is being carried on consisting of the cable leading from the antenna to the customers' receiving sets."

The Ontario Supreme Court in *RE Oshawa Cable T.V. Ltd. & Town of Whitby* (1969), 4 D.L.R. (3d) 224 quashed a municipal by-law which purported to set up a CATV licensing scheme, holding that legislative authority over cable T.V. operations is exclusively federal. An earlier decision of the B.C. Court of Appeal in a similar fact situation came to the opposite conclusion, holding that a cable company could be obliged to obtain a municipal license.(*Regina ex rel Canadian Wirevision Ltd.* vs. *New Westminster* (1965, 54 W.W.R. 238; 55 D.L.R. (2d) 613). This latter decision seems to be of doubtful weight when one considers the weight of authorities holding that the federal government has exclusive jurisdiction over such matters.

In *Terra Communications Ltd.* vs. *Communicomp Data Ltd* (1974) I.O.R. (2d) 682 the Ontario Supreme Court reaffirmed federal jurisdiction over cable T.V. as a part of its authority to legislate in relation to broadcasting. This result was reached in spite of the fact that this cable operation serviced only the residents of condominiums owned by the defendants. The defendant was also found guilty of operating a broadcasting undertaking without a license (*Regina* vs. *Communicomp Data Ltd.* (1974), 20 C.C.C. (2d) 213 (Cty. Ct.). In finding Communicomp guilty of the charge, it was held that the federal jurisdiction extends to cable T.V. operations wholly within Ontario and even to those operations which are confined to a single city.

Federal jurisdiction has also been held to extend to a cable operator who did not own or operate the system's antenna which, in fact, was located in the U.S. Only the cable portion on the Canadian side was owned by the operator. It was, nevertheless, held that the entire system was a single undertaking which attracted the exclusive jurisdiction of the federal government (see *Regina* vs. *Continental Cablevision Inc. (1974)* 5 O.R. (2d) 523 (Prov. Ct. – CRM. Div.)).

The federal government also has exclusive legislative authority over the

intellectual content of cable broadcasting. As was said by Ryan J. of the Federal Court of Appeal, in *Re Capital Cities Communications Inc., Taft Broadcasting Co. and W.B.E.N. Inc.*, (1975) F.C. 18 at 25:

> "The legislative authority of Parliament extends over the content of broadcasts as well as over the physical undertaking of the T.V. reception unit."

Hardly surprisingly, given the foregoing precedents, the Supreme Court of Canada issued two rulings on November 30, 1977 that reaffirmed federal jurisdiction over cable TV in Canada: *Capital Cities Communications et al.* vs. *Canadian Radio-Television Comission et al.* (S.C. November 30, 1977, unreported) and *The Public Service Board et al.* vs. *Francois Dionne, et al.* (S.C.C. November 30, 1977, unreported). Both were 6-3 decisions. The second rejected the claim of the Province of Quebec (supported by Ontario, Saskatchewan, Alberta and British Columbia) that it had jurisdiction in the field. The first rejected the claim of three Buffalo television broadcasting companies that the CRTC did not have the authority to order Canadian cable systems to delete (at least on a random basis) commercials broadcast by American Stations. Four provinces intervened on behalf of the American broadcasters.

While the federal government clearly has authority over cable systems which take signals from the air and transmit them to the public, it is questionable whether this authority extends to closed-circuit systems or information retrieval systems which merely select and then distribute programmes. As such usages of cable networks at no point involve the use of the airwaves, it would be difficult for the federal government to establish any constitutional basis for interfering with these activities.

As discussed later, the whole U.S. commercial deletion question has been radically altered by recent innovations. It is also important to recognize that even the decisions of the Supreme Court need not end disputes when strong political forces are involved as discussed in the section on federal-provincial relations.

3. The Regulation of Communication — The Organization Situation

The Canadian Radio-television Telecommunications Commission (CRTC) is, without doubt, the most powerful and omnipresent regulatory body in the communications field in Canada. Until recently, federally incorporated telecommunications entities (i.e. Bell Canada, British Columbia Telephone

and CN/CP Telecommunications) were regulated by the Canadian Transportation Commission under the authority of the Railways Act. But this authority has now been transferred to the CRTC which derives its original authority from the *Broadcast Act*, as amended.

With the exception of Saskatchewan, that deals with the regulation of communications on an Order-in-Council basis (cabinet decision), all of the provinces have independent regulatory bodies that are empowered to approve rates and other public utility matters where the federal government does not have jurisdiction (or chooses not to exercise it).

The CRTC is an "independent" agency of the Federal Government that reports to Parliament through the Minister of Communications. It consists of a Chairman, two Vice-chairmen, five full-time Commissioners and ten part-time Commissioners.[5] The Commission is assisted by a substantial staff directed by ten individuals in the Senior Executive (SX) category.

4. Basic Data

An analysis of any industry should, if possible, include income statements, balance sheets and sources and applications of funds statements prepared on a comparable basis for each of its sectors. Most readers would wish to compare rates of return among the sectors calculated on different conceptual bases, examine the differences in their capital structures and sources of funds and so on. An attempt was made by the author to provide this information but the problem proved to be intractible, at least within reasonable resource and time constraints. Major gaps and a lack of comparability of the published data among the sectors precluded the inclusion of financial data that, in his judgment, would be sufficiently reliable to be more helpful than misleading. This is an unfortunate omission – an omission that is particularly serious in the discussion of the communications industry because of the enormous importance attached to rate of return calculations in rate regulation. It is to be earnestly hoped that the relevant federal authorities (in particular the Department of Communications, the CRTC and Statistics Canada) and the aforementioned sector associations reach some accord and fill the void in a reasonable time period.

5. Capital Cost Relationships

Despite the lack of comparable financial data, as just mentioned, no one would dispute the highly capital intensive nature of the industry as a whole.

[5]The members of the Commission are appointed by Order-In-Council (i.e. the Prime Minister)

In this section we will briefly discuss some of the more important unit capital cost relationships involved in each of the several modes. Some of them are both complex and lie at the heart of the crucially important policy decisions that lie ahead. The following figures attempt to illustrate some of the simplest relationships in diagrammatic form. Most of the diagrams speak for themselves but some require considerable explanation and elaboration.

Consider first the simplest case, broadcasting. (See Figure 2).

The capital cost of broadcasting (the transmitter) is constant within a given radius determined by the power of the station, the typology of the area, prevailing weather conditions and the frequency of the transmission. Obviously it increases as the geographic area covered increases. Equally obviously, it is independent of the number of receivers tuned to the broadcasts emanating from the station.

Cable television is another relatively simple case, as Figure 3 indicates.

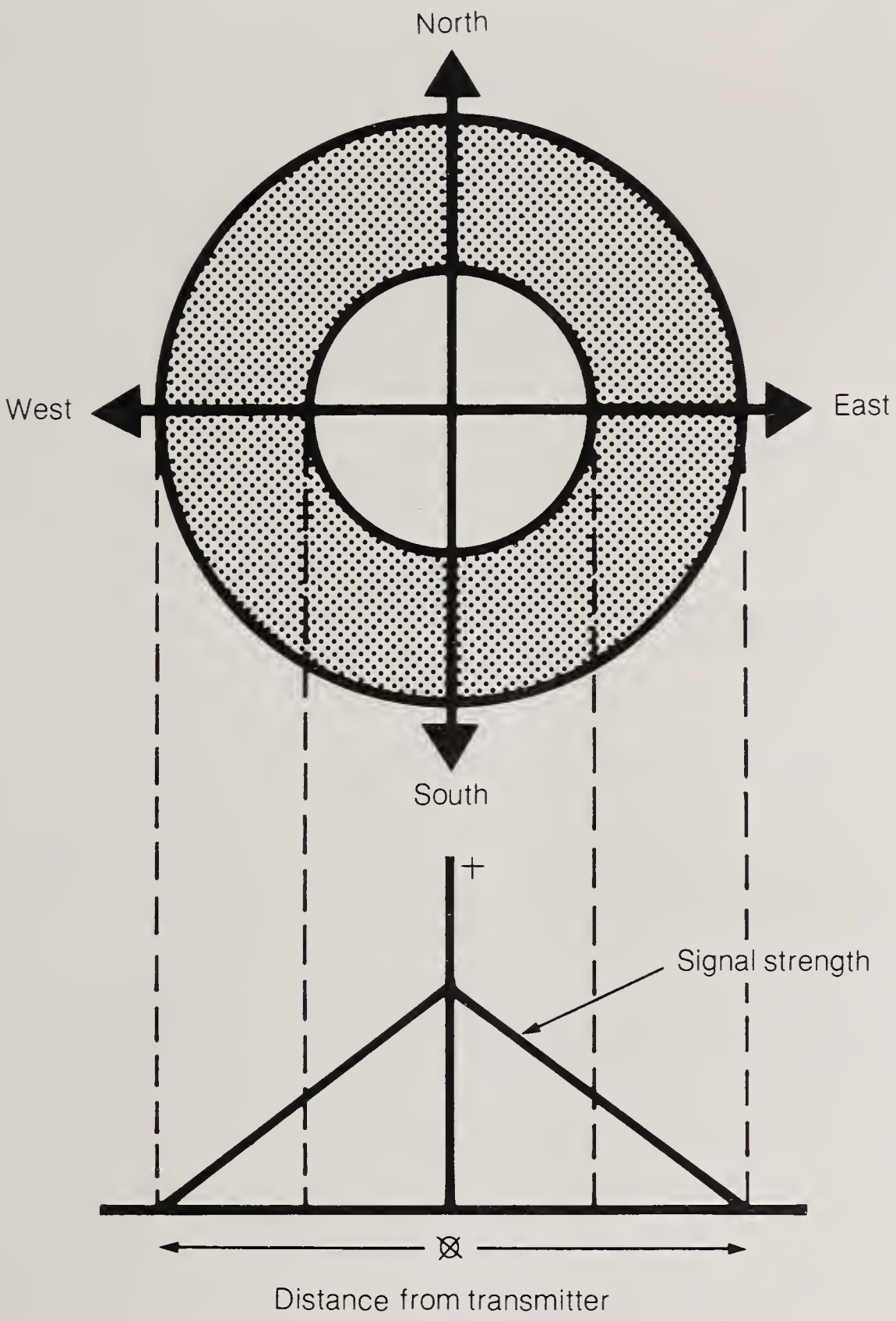
If we ignore the geographic density of subscribers and the distance between the cable operator's antennae and his market, cable TV capital costs are approximately constant per subscriber. But low densities and longer transmission distances tend to raise unit subscriber costs and conversely. The density of potential subscribers is a particularly important capital cost factor.

It may be worthwhile to deal briefly with and then ignore, another simple relationship in communications. As in cable TV, the cost per subscriber in telephony tends to fall as population density rises. The number of poles, the length of the drops and the length of trunk cables all increase per subscriber as density declines. See Figure 4. But the curve gradually flattens, for switching and drop costs are little affected by subscriber density.[6]

Another relatively simple cost relationship exists with respect to long distance transmissions. As stated before, there are essentially three types of long distance transmission facilities operating within Canada: microwave (a kind of radio transmission), satellites and paired or coaxial cables. The interesting cost relationship between the first two is illustrated in Figure 5. (Cables have the same cost characteristics as microwave as far as distance is concerned and are ignored in what follows).

[6] It is also true that the capital cost per subscriber tends to rise slowly again after some relatively high density is reached – an urban area with a population in the hundreds of thousands.

Figure 2: Capital Costs and Geographic Coverage in Broadcasting



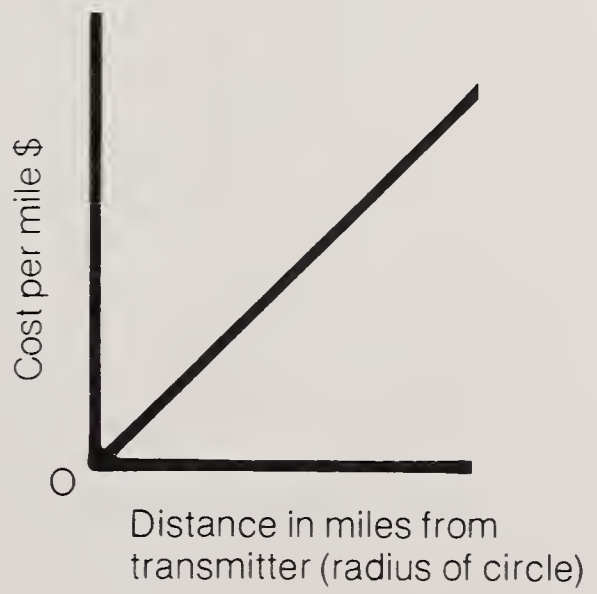


Figure 3: Capital Costs in Cable Television

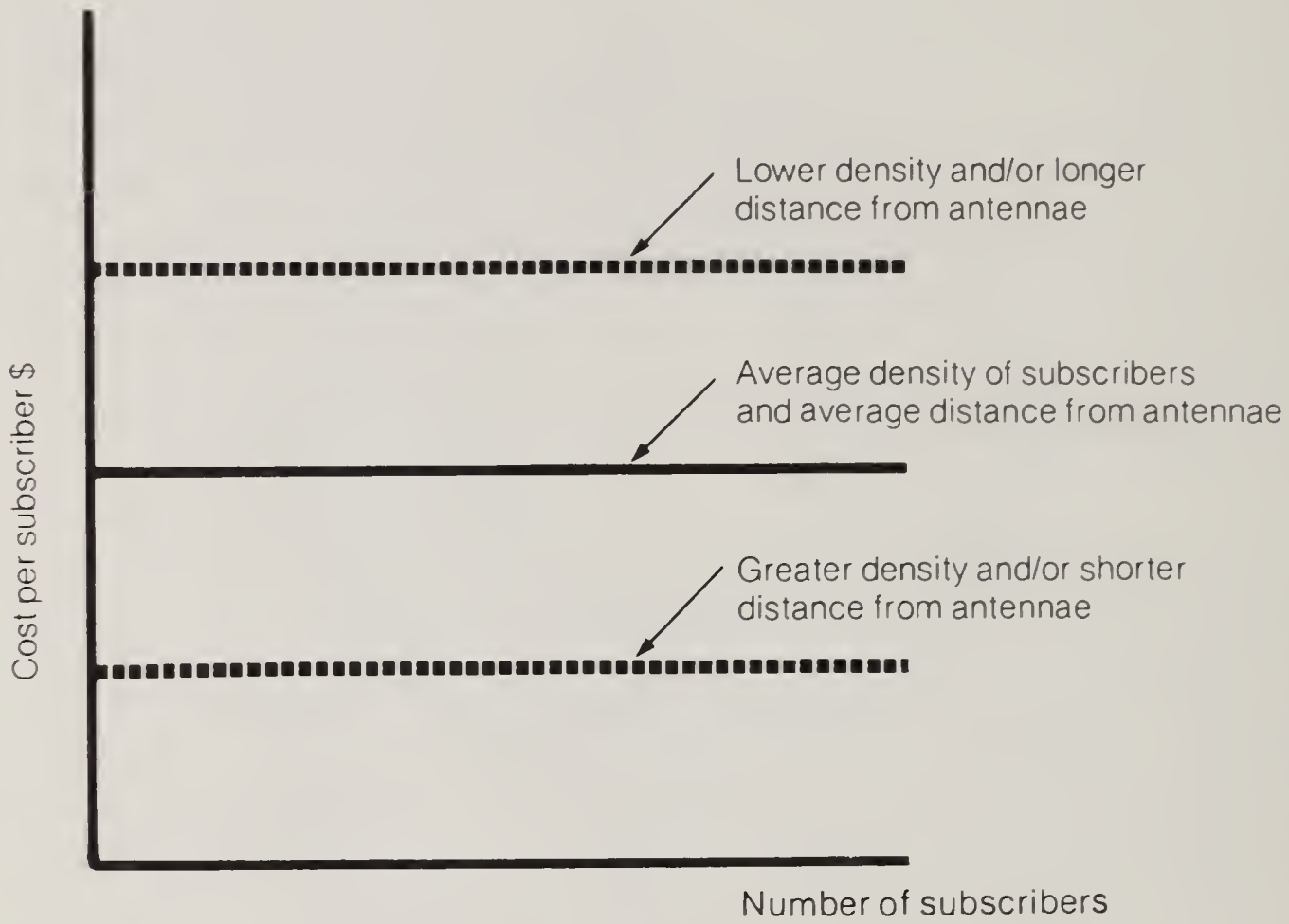


Figure 4:
Relationship Between Unit Capital Costs and Population Density in Local Telephony

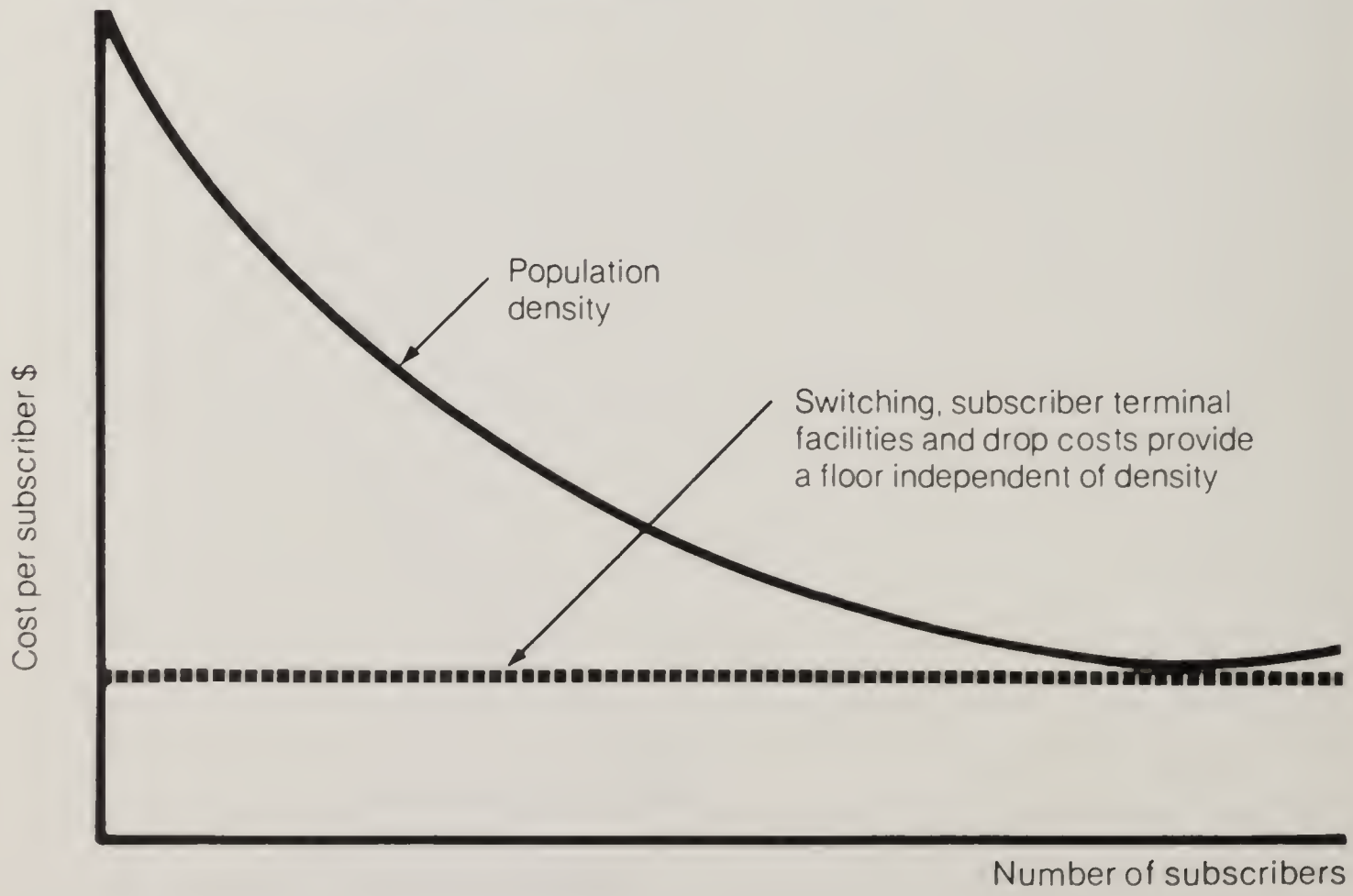
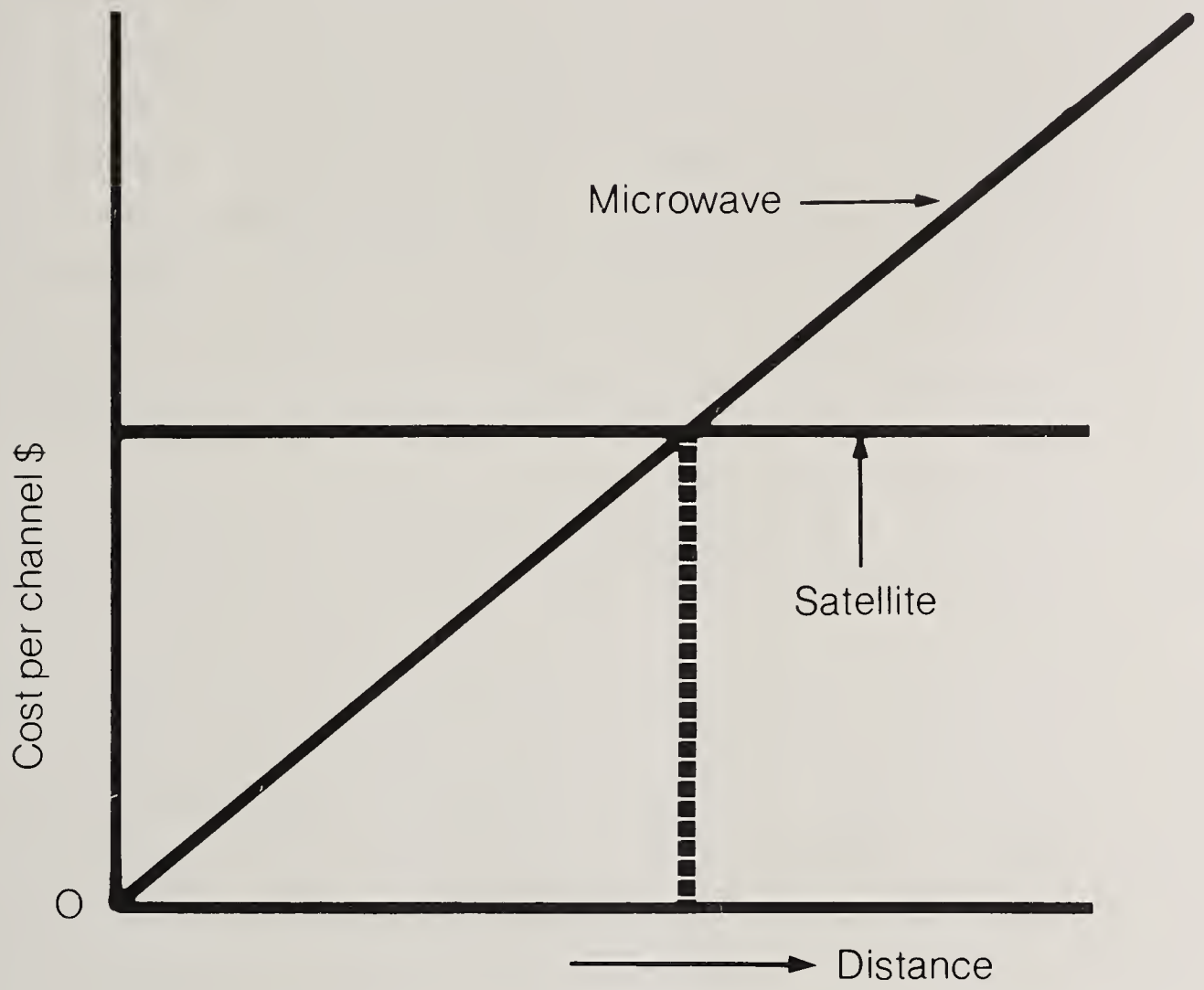


Figure 5:
Capital Cost of Long Distance Channels*



*It should be noted that the cost of ground stations for satellite reception are ignored. See text for elaboration.

The transmission cost (as such) per channel using a satellite is invariant with respect to distances up to a great distance (say 10,000 miles). The capital cost of microwave transmissions is, crudely speaking a linear function of distance. But when the ground stations vital to the reception of satellite transmissions are taken into account the situation is less straight forward. What seems to be true, according to the information available to the author, is that it is now cheaper to build a satellite ground station every 30 miles than it is to provide a microwave system covering the same distance. Moreover, microwave systems must, of necessity, traverse barren territory while ground stations can be strategically located only where potentially viable markets exist.

These are important relationships, although relatively simple ones, and we will draw upon them later. It is in the field of local telephony that the plot thickens and dramatically so.

In local telephony there are three seemingly immutable relationships essentially of a technological nature that have great economic significance. We will examine them in turn. Suppose, as a starting point, that a local telephone system had N subscribers and that each chose to have a dedicated line to every other subscriber. This would mean that each subscriber would have N-1 telephone receivers and a pair of copper wires would connect every pair of subscribers – leaving aside the possibility that a subscriber would want to call himself! This would mean that there would be (N-1) paired lines emanating from each of the N subscribers or a total of N times N-1 paired lines in the system. This could be well approximated by saying the number of lines in a system with N subscribers would be N^2 . (N times N). Playing with a few arbitrary numbers makes it clear that an astronomic number of lines would be required in such a dedicated line system.

Number of subscribers	Number of Paired Lines Required
(N)	(N^2)
10	100
100	10,000
1,000	1,000,000

Even if the cost per line were relatively modest (say $500) the capital cost of installing such a dedicated line system even in a small community would be extraordinarily high. For a city like Toronto the capital costs would be phenomenal: 1,000,000 times 1,000,000 times $500!

Fortunately, two vitally important factors have come to rescue us from the mind boggling costs implied by the foregoing illustrative calculations. The first of these is what has loosely been called concentration-switching and

the other is the rapidly declining cost per line as the number of lines in a given trunk cable is increased. First, consider concentration and switching. To grossly over simplify in both instances, concentration means taking advantage of the fact that all subscribers do not attempt to speak simultaneously to all other subscribers all of the time, which would be technically feasible if the system consisted of a massive network of dedicated lines (N^2 lines). To put the matter the other way round, with a totally dedicated line system there would be enormous excess capacity. On the basis of experience it has been possible to estimate the probabilities with respect to the number of calls, the length of calls, the distance of calls within the local area, deviation from peak load, and so on. Using these probabilities and an arbitrary safety margin it has been possible to design equipment that, in conjunction with switching equipment, concentrates many *potential* messages on a single trunk line without appreciable inconvenience to the subscriber. For example, Subscriber A wishing to speak to Subscriber B will receive a busy signal from A only rarely when B, in fact, is not using his own telephone.

It will be recalled that with a dedicated line system paired copper lines run between each subscriber and every other subscriber. With switching equipment this becomes unnecessary. Figures 6 and 7 attempt to illustrate, in an extremely crude manner, what is involved. Each line represents a *pair* of copper wires and, for simplicity, we assume that there are only four subscribers although the basic points will be made with respect to two of these subscribers, B and C.

Figure 6 attempts to show the basic connections in a switched system. The switching mechanism as such, can be looked upon as a grid of wires that, unless activated, are not in contact with each other at any point in the grid. In our particular diagram, originating calls are depicted as entering the grid from the top (the vertical wires) while the terminating calls are shown as leaving the grid from the left hand side (the horizontal wires). It is important to recognize that each of the subscribers is simultaneously connected to a unique pair of originating wires in the grid (vertical) *and* a unique pair of terminating wires in the grid (horizontal). It can be seen from the figure that the paired wires of the subscriber are connected both to the originating side and to the terminating side of the switch. This means that, in effect, in the exchange there is a "Y" connection to the switching equipment for each subscriber.[7]

Let us now turn to switching *per se*. If we ignore for the moment that switching equipment is usually designed to handle a relatively limited number of continuous subscribers and that the "black box" switching units are interconnected through trunk cables, what we have tried to illustrate

[7]The "Y" is, in fact, a double "Y" connection because there is a Y for each of the two wires in the subscriber's pair.

Figure 6:
The Basic Structure of Switching in Telephony

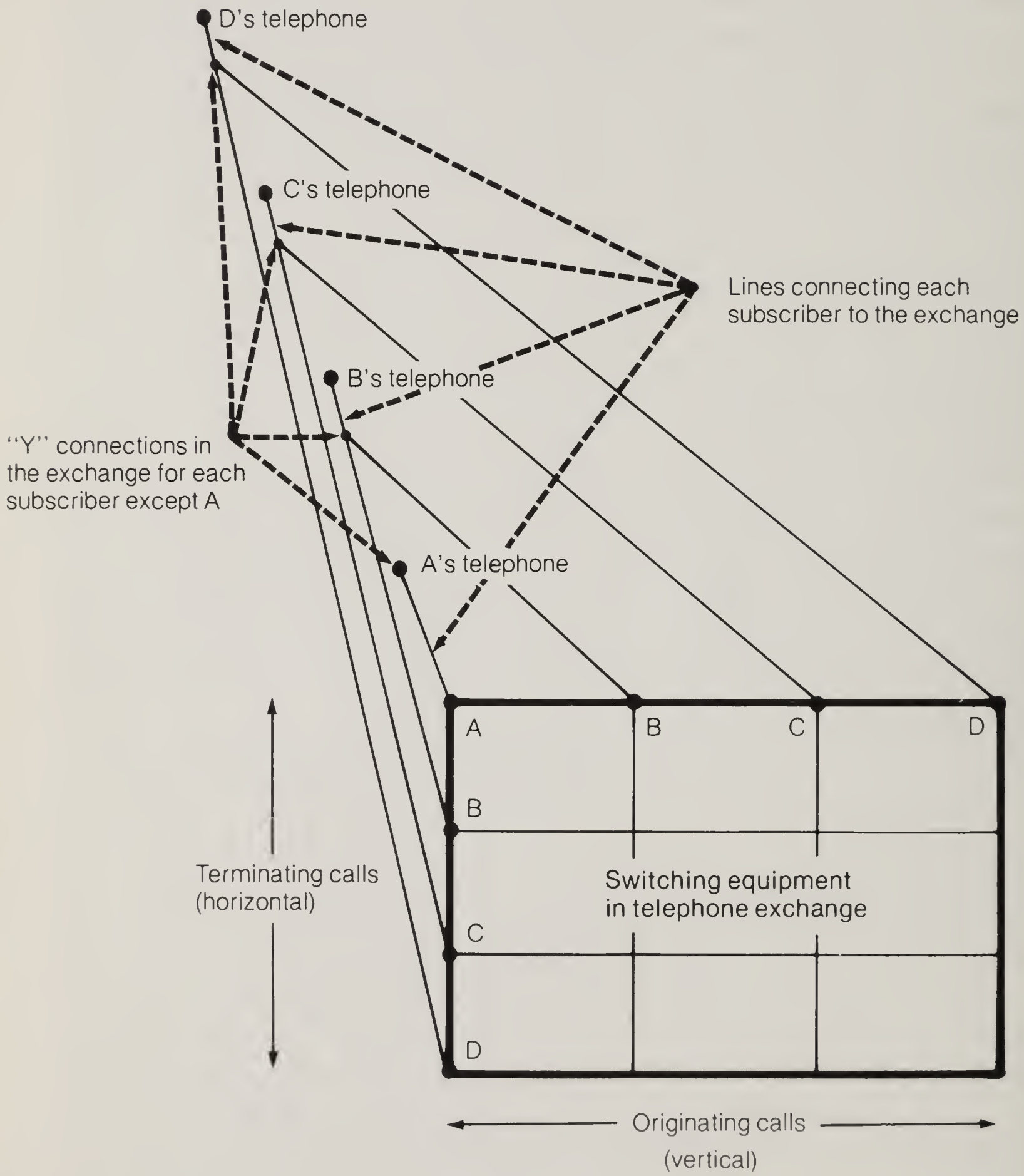
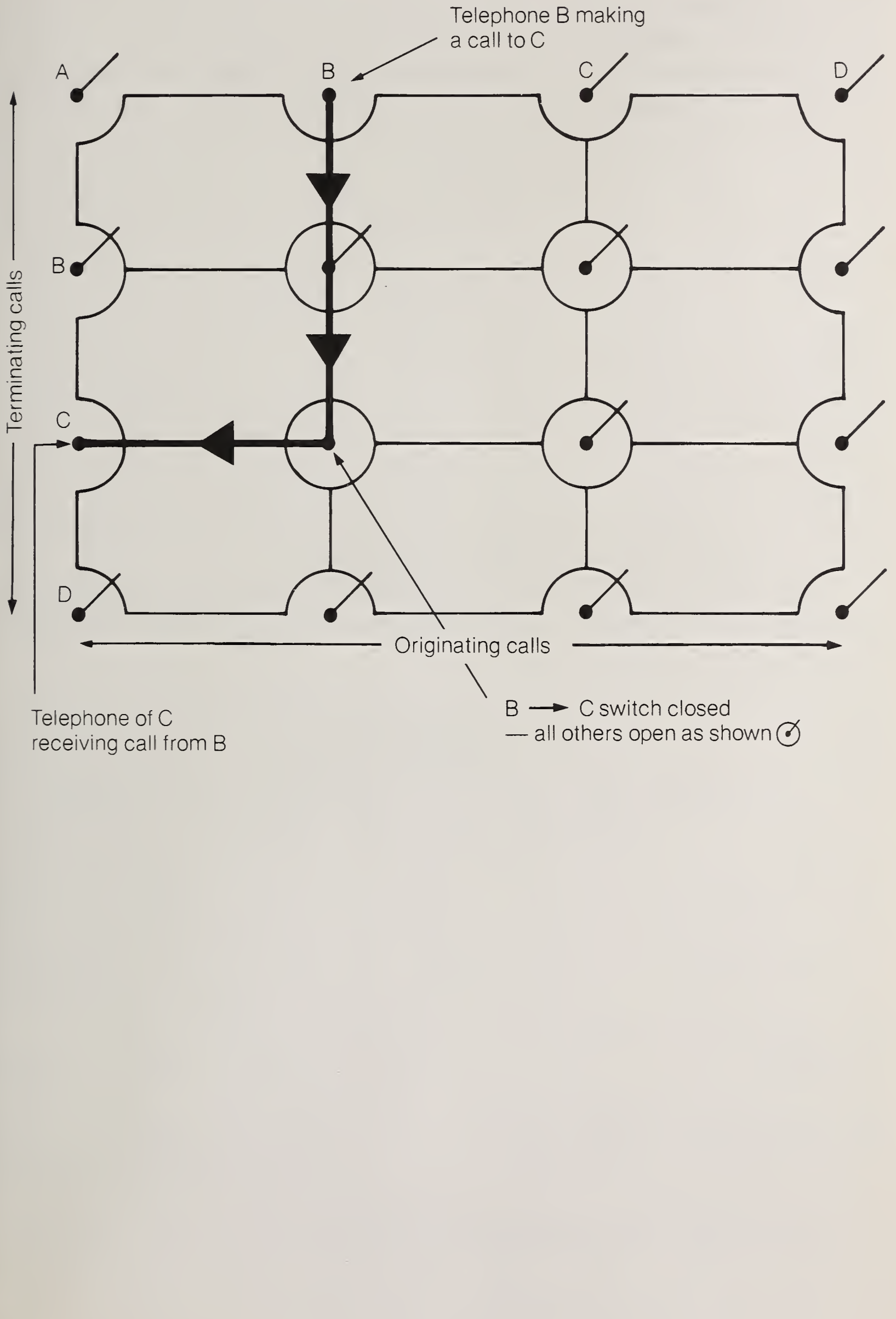


Figure 7:
Simple Illustration of Switching in Telephony



here is the situation where subscriber B originates a call to C. Leaving aside the technical niceties which need not concern us, the user of telephone B by dialing C's number (which is in the same switching box we will suppose) triggers a device that assesses whether or not the line connecting C to the switching equipment is open (it being a matter of indifference as to whether the busy line at C arose from an incoming or an outgoing call).

If C's line is open, the switch connecting the incoming signal from B enters the originating call side of the switching device at the point allocated to B and is connected, and uniquely connected, to the point on the terminating side of the switching device allocated to C. The telephone in C's residence or place of business rings and, if answered, the call between B and C is completed. It permits two way communications between B and C and is uniquely addressed (barring listening devices for surreptitious surveillance!).

The concentration of signals previously discussed enters the picture in terms of the savings achieved in the trunk cables that interconnect the multitude of separate switching boxes located in each local exchange and connecting each local exchange with a central exchange. Instead of having a dedicated line connecting each of the output terminals of a piece of switching equipment with each of the input terminals of all other pieces of switching equipment, devices have been developed that select the unused trunk lines available at any point in time thus greatly reducing the required number of lines in a given switch connecting trunk.

Rough estimates that illustrate the dramatic impact of concentration and switching on the number of lines required for local telephone communications are given in Table V below.

TABLE V

ESTIMATED ECONOMIES ACHIEVED BY CONCENTRATION AND SWITCHING IN TELEPHONY

Number of Subscribers (N)	1	10	100	1,000
Lines required with dedicated lines (N^2)	1	100	10,000	1,000,000
Reduction in number of lines as a result of concentration and switching*	1	50%	70%	75%
Required number of lines per trunk after compression and switching	1	50	3,000	250,000

*Assuming one three minute call per subscriber per hour.

Still another cost reducing factor has had a significant impact on telephony: the declining cost per line in a trunk cable as the number of lines encompassed by a particular trunk cable increases. Indeed, a persistent relationship between the two factors has been noted by Halina.[8] He reports that in electronic communications generally it has been found that a ten-fold increase in the capacities of trunks only results in a doubling of the costs.

The results of the relationship just described, as the data given in Table VI indicate, are certainly dramatic.

TABLE VI

ILLUSTRATIVE RELATIONSHIP BETWEEN COST PER LINE AND NUMBER OF LINES PER TRUNK CABLE

Number of Channels per trunk	Relative Total Trunk Cost/mile	Relative Average Cost per channel
1	1	1
10	2	.2
100	4	.04
1,000	8	.008

We have illustrated the substantial cost saving achieved by switching and concentrating relative to a dedicated line system. Now we see that the trunking required to interconnect switches is also subject to phenomenal economies of scale. What has not yet been found amenable to cost reductions as scale increases are the paired copper wire drops connecting the individual subscriber to the exchange and the switch required for each subscriber. Leaving aside the fine points, these two cost elements are, in total, simply a function of the cost of the average drop plus the cost of adding the switching equipment required to service yet another subscriber multiplied by the number of additional subscribers.

If we put together the estimates given in Table V that indicate the number of lines in a trunk required to service a certain number of subscribers after concentrating and switching *plus* the declining costs per line with increasing trunk capacity, as illustrated in Table VI, we obtain the results given in Table VII.

[8]Halina, J.W.: "Perspective 1985" Department of Communications, Ottawa, February, 1975.

TABLE VII

ESTIMATES OF TOTAL AND PER SUBSCRIBER COSTS FOR LOCAL TELEPHONE SERVICE

(1)	Number of Subscribers	1	10	100	1,000
(2)	Number of lines required with a dedicated line system	1	100	10,000	1,000,000
(3)	Number of lines required per trunk with concentration and switching*	1	50	3,000	250,000
(4)	Relative total trunk costs per subscriber**	1	3	10	40

Sources: *Table V
**By the logic illustrated in Table VI

Bearing these fundamental relationships in mind, consider them in the context of the typical existing switched telephone system. The average capital cost of a telephone is estimated to be roughly $1,500. The component costs are thought to be approximately as follows at the present time:

local loop	$750
switching concentrating	$375
trunking	$375
	$1,500

There are, as we have said, apparently no economies of scale to be realized, at least given present technology, with respect to the first two items. But important economies of scale are, as we have seen, achieved with respect to trunking. *These are embodied in the figure just given: $375.* It is true, of course, that with a dedicated line system, the switching-concentrating costs would be zero. But the number of lines required would be astronomically greater. With one thousand subscribers each with a dedicated line to all other subscribers one million private lines would be required. At a crudely estimated cost of $750 per line the average cost per subscriber would be $750,000!

The immediate implications of all of this are as striking as they are apparent. The technological innovations of switching and concentration, together with the economies of scale involved in trunking have made transmission a sharply diminishing capital cost factor in telephone communications. This is completely at variance with what would have obtained with a universal, dedicated line, local telephone service which, as we have repeatedly mentioned, would require N times N lines for N subscribers. Put another way, what could have been runaway costs rising exponentially with the number of subscribers has been "tamed" and, in fact, costs now rise relatively linearly with respect to increases in the number of subscribers.

There are two other implications that should be brought to the reader's attention. First, because the cost per drop of a given capacity apparently is not amenable to cost reduction as the number of subscribers increases, the only opportunity available for economy is to increase its utilization (the flow of signals) so that the cost per bit of information flowing through it falls.

Cable TV as we know it is, as we are all aware, a unidirectional mode and, unless equipped with filters (required for pay TV) cannot be addressed to particular subscribers. Moreover, because it is arranged like a party line, (i.e. the telephones are wired in series) it is able to avoid the costs imposed by the "N times N rule".

Nor does cable TV incur the high capital costs of concentration or switching or trunking. The capital cost differences are, therefore, striking. The average cable installation per subscriber is estimated to be almost $200: the average capital cost per telephone subscriber, as just mentioned, is estimated to be between $1,000 and $1,500. It is clear that, from a capital cost per subscriber point of view, cable TV systems *in their current state of development* are much more akin to broadcasting than to telephony.

The second implication arising from what has been said above is that if and when cable TV were to provide interactive addressed services akin to those of telephony (i.e. the "wired city") it too would be subjected to essentially the same challenges and presumably would be in need of similar remedies – switching, concentration, integration in common trunks, and the promotion of new services to exploit its high capacity subscriber drops effectively.

Suppose that by some magic each telephone subscriber in Toronto were also a cable TV subscriber and that all of the cable drops were fibre optics with a capacity to carry, let us suppose, 300 channels (as opposed to the 30 plus channels provided by the present TV cable systems),[9] then which of the

[9]It must be acknowledged that the upper limit on the carrying capacity of present cable TV systems arises primarily from the limited capacity of the amplifiers rather than of the cables themselves. To take advantage of the potential of fibre optics a major innovation with respect to amplifiers also would be required.

following alternatives (and there certainly are others) would make the most technological and economic sense (ignoring all organizational, ownership, or jurisdictional questions)?

(1) Continue operating the telephone and cable TV systems as entirely separate entities (ignoring the common use of rights of way, etc).
(2) Interconnect the two systems to the extent of using the telephone system as a means of gaining access, on a pay as you use basis, to particular channels (pay TV on the grand scale!).
(3) Abandon the paired copper loops of the telephone system and install (upgrade?) switching – concentrating – trunking capacity capable of handling at least one channel per subscriber on a two-way uniquely addressed system (the video telephone). These are the kinds of alternatives that probably will present themselves in the next decade or so.

6. Some Issues in the Regulation of Telephone

For the reasons given earlier, it is generally agreed that many crucial aspects of telecommunications, by their very nature, are monopolies and must be subject to some kind of government intervention.

Control of any so-called natural monopoly provides an opportunity for what might loosely be termed the "exploitation" of the users of the goods and on services it provides. Exploitation in this context means imposing charges for services that do not reflect their costs but rather what the user will pay, *in extremis,* than do without something deemed to be "essential". Water and electricity, for example, have this characteristic, as do most aspects of telephone systems in this day and age. The problem is for the public to obtain these kinds of services without being held to ransom.

Three general methods have been adopted to deal with the natural monopoly problem: public ownership of the facility, public relation of a privately owned facility, and some combination of the two.

We will discuss in this section some of the advantages and disadvantages of each of these approaches. One thing seems perfectly clear, there is no "ideal" solution. Where vigorous competition is necessarily precluded, except possibly at the "fringes" of an industry, we are, perforce, considering alternatives that are at best second best! Competition, can be faulted on the grounds of its "harshness" and/or its unfairness with respect to it's effects on the interpersonal distribution of income (at least in the eyes of some). Nevertheless, even when competition is imperfect, as it usually is, it achieves over time (and under some circumstances the time period is extensive) the production of the goods and services that consumers want, when and where

they want them, at the lowest possible prices. When dealing with natural monopolies, the harsh winds blown by the fear of financial loss by investors and by the fear of loss of jobs by employees in competitive industries are most imperfectly stimulated by either regulation or government ownership. As we said at the outset, this being the situation, *every* conceivable policy that can introduce *any* degree of competition must be approached positively, as must *every* source of information that can assist in the appraisal of the actual performance of monopolies in terms of standards that reflect some degree of competition.

6.1 PUBLIC OWNERSHIP

Public ownership implies, of course that those who manage the utility are, at least indirectly, public employees ultimately responsible to the legislature. If they are successful, they may be promoted and they may be well paid but they can acquire no equity in the enterprise.

Who then "owns" a government public utility? Ultimately it is the voter-taxpayer in the jurisdiction where it is located. Their capacity to pay taxes is the bed rock collateral on which a government borrows funds to finance the investment. (Retained earnings and depreciation are other sources of funds but that does not change the picture in a significant way.)

It is important to note that when the services of a utility are not related to the actual usage of the particular subscriber, the rates charged are, in a sense, just another form of taxation if the services provided are universally considered to be absolutely essential so that "subscription" is, to all intents and purposes, automatic for all with appreciable income. Of course, the flat rate charged the subscriber is not a true tax because subscription is technically voluntary and one can contemplate telephone rates set so high that the "penetration rate" would fall significantly. But where the telephone is concerned, the demand for local service is obviously highly insensitive to the level of flat rate charges.

The crucial policy questions with respect to such publicly owned utilities, say the Manitoba Telephone System, are:

a) the sources of financing
   - from the government[10]
   - from the market directly
   - from rates set so as to allow a retention of earnings and adequate provision for depreciation

b) changes in the level of rates

c) changes in the structure of rates

[10] The government itself has, of course, alternative sources of financing too.

d) the standard of service provided
e) the pressure on management to operate efficiently
f) the extent and method of government control

We will return to some of these questions later in terms of the whole sector, but a few generalizations may be in order. The following propositions, based on casual observation, not only appear to be valid but obviously so.

By and large politicians seek to minimize increases in the level of rates. They prefer rate structures that subsidize swing voters.[11] They prefer to finance utilities through debt financing rather than by raising taxes and rather than by imposing rates high enough to allow a substantial retention of earnings (a hidden tax). While anxious in principle to have efficient management they do not wish to *appear* to be "interfering" – that is to say using a public utility for narrow political purposes. Moreover, the *appearance* of independence is a valuable shield to a ministry for it reduces the political cost of unpopular decisions. "Oh I know that rate increase was terrible but what could we do. After all the agency *is* independent".

What often emerges from this situation are publicly owned utilities that often are largely empires unto themselves – uncontrolled by elected representatives of investors or subscribers. They are, in a real sense, "possessed" by their own bureaucracies. The members of such bureaucracies are, as most of us are, in pursuit of their own advancement or a quieter life, and preferably both. This entails an ever changing balancing act among internal organizational imperatives. It also involves obtaining a balance between satisfying these internal imperatives and avoiding the alienation of any outside person or group that would lead to an outcry that would upset the ministry and hence induce the latter to take a more stringent line with respect to the agency's autonomy and its requests for government funds.

Perhaps the most successful tactic adopted by such organizations in dealing with their elected "masters" is to use their much vaunted technical expertise as a weapon in their perpetual fight for an ever larger share of collective resources. It is not simply a matter of father not knowing best but rather a situation where father knows virtually nothing at all.

As the organization grows, so grow the number and importance of its senior executives. Also, is it not more fun to concern oneself with the newest technological toy than with a search for greater efficiency? "After all, the public really doesn't understand. They will be pleased we bought the toy when they see how interesting it is". So goes the story.

Another reason is the lack of motivation of the executives of publicly owned utilities to take *any* risk of a system breakdown. The pain inflicted

[11] The term "swing voters" means in this context uncommitted voters in ridings where their support could be decisive in an election.

on them of a system breakdown[12] is so great and the rewards to them for taking a calculated risk so small that the result is likely to be a permanent degree of excess capacity that a competitive enterprise could not tolerate.

6.2 PRIVATE OWNERSHIP

Because the shares are widely held, the executives of the shareholder owned telephone companies probably enjoy at least as much, if not more, autonomy than their public sector counterparts. But clearly there are significant differences. The investor owned company either has to raise funds in the market or from retained earnings and depreciation. The market's willingness to supply funds will hinge very crucially on the rate increases granted by the regulatory authority unlike a public telephone system that essentially depends on the grace and favour of the government of the day.

The relationship between rate changes and financing is straightforward. Unless rate increases are granted that provide a "fair" rate of return on capital, the company's shares will decline in value. To sell additional shares at bargain basement prices would dilute the equity of existing shareholders. But without more equity financing, additional borrowing will be required if expansion is to continue. This will change the debt/equity ratio unfavourably and gradually raise the cost of debt relative to, say, government bonds. (Pushed far enough, debt financing will not be available at any price as witnessed by the situation of some American power utilities). Unless rate relief is granted, ultimately the extent and/or quality of service must necessarily decline. While it is not possible to speak to the magnitude of the latter effects, the impact of rate changes on share prices and capital structure are well documented, at least for Bell Canada.[13] Bell shares only moved from $42.00 per share to about $53.00 per share (currently) over several decades,[14] and certainly have declined relative to their book value over this period.

As far as debt structure is concerned, Bell's long term debt accounted for 41.5 percent of its capital structure in 1966 and 48.1 percent a decade later. The effects on the relative cost of new Bell debt are more difficult to determine but do not seem inconsistent with the hypothesis stated above.

[12] The public outcry following the massive power failure in Eastern Canada and the United States provides a good illustration. It taught Ontario Hydro a lesson that undoubtedly has not been forgotten.

[13] See "Bell Canada and the Canadian Telecommunications Industry" A.E. Ames and Co. Ltd., May, 1977.

[14] It is important to note that at least some part of the recent increase in the price of Bell Canada shares probably is attributable to the recent changes in federal personal income legislation reducing the tax on dividends.

Factors other than the determination of the appropriate rate of rate increase *per se* could have indirectly affected the Bell rate decisions by impressing, rightly, or wrongly, the Commissioners. When the criteria on which rate changes are based is the provision of a "fair rate of return" the regulatory authority has to decide on the legitimacy of the stated net earnings (gross income less expenses) and of the capital investment of the applicant. This is an extraordinarily difficult and perhaps impossible task. Certainly any absolute measures are impossible.[15] While not wishing to imply that this happened with respect to Bell, or any other regulated company for that matter, it is true that net income estimates can be altered within wide margins by the use of different accounting methods that are all "proper" from the professional accountant's point of view. Moreover, costs can be allowed to rise unnecessarily. Too much plant and equipment, too technologically sophisticated and too durable can be put in place. With the assessment of these kinds of issues the regulatory authority must, perforce, concern itself if it is to fulfill its function competently.

The first point to be made here, however, is that unless the authority is extraordinarily astute and knowledgeable the adoption of a fair rate of return criteria may easily result in the validation of whatever the applicant's managers have decided. This does not mean that the latter's decisions were either dishonestly or carelessly made. But in complex areas of this kind, where the *expected* rate of change in a whole spectrum of technologies and the *expected* changes in the costs of alternative technologies are of crucial significance, wide differences of "professional" opinion are inevitably going to occur.

A second point to be made is that, for the reasons given earlier when discussing publicly owned utilities, there is probably a bias within these organizations to be too capital intensive with the result that, in a fully employed economy, the nation has less of other things it would value more.

Thirdly, because the larger the organization and the more it has a direct impact on the day-to-day life of the voter the greater the hostility towards it is likely to be and consequently the greater the vigilance (caution) of the regulatory authority and of politicians.

Fourthly, the principal difference between a provincial telephone system and an investor owned, federally chartered, telephone company is that the management of the former is faced with the task of convincing a cabinet and/or a relatively weakly supported regulatory authority appointed by politicians. The management of the latter is faced with the task of convincing a much more strongly staffed regulatory body, also appointed by politicians. Direct political involvement at the federal level probably is less

[15] The capital base used for calculating rate of return by Canadian regulatory authorities is exceedingly complex, but the principles discussed are not significantly altered.

frequent. This can be explained, at least in part, because additional funds do not come from the federal government as such. But here too, the members of the regulatory authority are not likely to be insensitive to political realities. Cabinets have been known to reverse or postpone rate decisions that are politically unpopular or thought to be inexpedient.[16] That such reversals are embarrassing (or worse) to the regulatory authority hardly needs to be said.

6.3 RATES

Choosing the "appropriate" pricing principles for utilities has always been extraordinarily complicated and disputatious. Several issues are inextricably related. Some of them are: the problem of adopting pricing schedules consistent with a "fair" distribution of income; the problem of achieving maximum efficiency in the allocation of resources; the problem of selecting the appropriate time period; the problem of dealing with uncertainty; the problem of measurement. It is not possible to provide here (if anywhere!) a simple model that neatly resolves the telephone pricing question. But a few brief comments are in order.

Most regulatory authorities both in Canada and elsewhere have granted rate increases on the basis of the need to provide equity investors with a "fair" rate of return on their capital, having satisfied themselves that the reported net income of the enterprise is neither artificially low nor the rate base overstated, as previously mentioned. They have also concerned themselves with requiring a *structure* of rates that will yield the requisite revenue in conformity with some undefined notion of equity plus some conscious or unconscious views about the demand sensitivity of certain classes of users to price changes. Subscribers who are insensitive to price changes tend to be burdened with higher prices than are warranted by the differences in the costs of the services they use relative to those of other users. In short, conceptually at least, an average rate is struck that, when applied to the capital base, yields the necessary revenues to give the requisite rate of return. Then the *structure* of rates is juggled to achieve the same total. This rate structure, because it rarely reflects the actual variations even in the average costs of providing services to the various groups constitutes an implicit system of taxes and subsidies among groups of subscribers.

The Canadian telephone rate structure involves:

- long distance calls subsidizing local calls
- business calls subsidizing residential calls

[16] The most immediate example is the November, 1977 Cabinet decision to overrule the CRTC's ruling that would have precluded TCTS control of Telsat.

– urban calls subsidizing rural calls

Now, most economists espouse, at least in principle, an entirely different approach that goes under the name of "marginal cost pricing". Under the MCP approach, the price of the additional unit of service would equal the additional costs required to produce it. This rule is advocated because, if followed, the price paid for a service would equal its marginal opportunity cost – the value of the other goods and services necessarily foregone in providing it. Ignoring a large number of qualifications, the argument goes like this: when prices *exceed* marginal costs too little of a service will be provided because additional amounts of the service would be more valuable than the other things the additional resources actually yield in their alternative uses. Conversely, when the price of service is *below* its marginal cost too much of the service will be produced and too few of the goods and services that consumers value more cannot therefore be produced because of the perverse deployment of resources. In either case society is poorer and the basket of available consumer goods and services will either contain less and/or have the wrong mix given to prevailing tastes and preferences.

The logic of MC pricing is impeccable under its own assumptions and can, in a highly formalistic manner, even deal with most of the problems cited above. But thus far (and probably forever) the problems involved in the application of MC pricing in its pristine form have proven intractable.

Fortunately, however, there is an approximation to MC pricing that retains some of its basic advantages. This crude alternative has the formal title of "average long-run incremental pricing" or, for brevity, "long run marginal cost pricing" (even though "average" and "marginal" are far from synonymous). For even greater brevity we will use the acronym LRMC pricing.

LRMC pricing involves the following steps (we are condensing here at least to the point of being either incomprehensible or misleading or both):

1. consider a series of blocks of additional output of a particular service (relative to present output at full capacity utilization);
2. estimate the *average* variable cost per unit of output for each block;
3. estimate the *average* capital cost per unit of output for each block;
4. add (2) and (3) on a block by block basis and treat the sum of two as the tentative price for the block;
5. estimate the potential increase in sales over time under these alternative prices;
6. select the "appropriate" time horizon, depending primarily on the cost of capital and the level of uncertainty;
7. construct the extra capacity to satisfy the demand at the end of the planning period at the prices (as defined above) expected to utilize it fully;
8. price all services of the same type (current and future) at this price.

Ignoring a number of complexities that are involved even in this grossly simplified approach to pricing (e.g. the treatment of facilities utilized in common in providing more than one service), it can be said to have several conspicuous advantages. It ignores sunk costs. Investment bygones are *really* bygones. They should be valued at their *current* opportunity cost which is in fact zero. It encourages the deployment of the current flow of resources available for investment to the uses where they offer the greatest yield as judged by what consumers are willing to pay for the additional output they can produce.

The differences between the LRMC pricing approach and the present pricing method are potentially enormous. The former method does not validate old decisions whether they were right or wrong. The latter does. Perhaps of the greatest importance, LRMC pricing encourages expansion where economies of scale are likely to be gained and conversely. Pricing based on guaranteeing a rate of return on previously invested capital is completely insensitive to this important factor.

If long run marginal cost pricing has so many merits why has it not been adopted almost universally? In fact it has been *rejected* almost universally both in Canada and the United States and other western countries.

The answer to this question is as illusive as it is relevant. But it may be helpful to list at least a few of the factors seemingly involved.

(1) Regulatory bodies do not like LRMC pricing because it depends too heavily on forecasts of future costs and demands. Rate of return pricing has an aura (which is illusionary to a considerable degree) of concreteness – the "hard" facts.

(2) Regulated entities do not like LRMC pricing because it does not validate previous investment decisions by conferring a guaranteed return on them.

(3) Investors do not like LRMC pricing when average long-run incremental costs are declining, as is often the case with so-called natural monopolies that are servicing an expanding market. In these circumstances those, who invested first, find that the rates charged keep declining and hence the return on *total* investment gradually drifts downward. This is the classic situation in decreasing cost industries and can only be accommodated by increasing government subsidies.

(4) Politicians do not like LRMC pricing for all of the foregoing reasons *and* because the benefits that would be obtained for the economy as a whole would not be appreciated by the average voter and it would eliminate the hidden cross-subsidization of subscribers possible under rate of return pricing.

For all of these reasons, probably others as well, one would have to be remarkably optimistic to expect that LRMC pricing is likely to be adopted by the CRTC in the foreseeable future.

What then can be said, in the brief compass available, about rate regulation for the communications industry that is within the range of the immediate and the feasible? The answer, if such it be, can be divided into parts. These will be considered in turn.

It is a well accepted proposition in economics that goods and services which are "free" will be exploited up to the point where an extra unit (that marginal concept again!) is valueless because it will be consumed up to the point of satiation. The telephone rate structure within a local calling area is on a flat rate basis. This means that every household, office and factory that has a telephone – virtually all – treat the cost of a local call to be zero. Calls are made up to the point where it is too much bother to make another. Given that the flat rate is, to all intents and purposes, a tax on the household or business, all calls are "free". An important implication, especially if the telephone company adopts the policy that the service should be "perfect", (or is required to do so by the regulatory authority), is that a much greater investment is required than would be the case if there were a charge levied on each call. The volume of calls is almost certainly higher when they are "free", than if the charges were usage sensitive. The reader might contemplate how many more toll calls he would make if they were to cost him nothing except a little time and effort.

The present flat rate pricing system therefore substantially increases the investment in telephone facilities relative to what would prevail if every telephone were a pay telephone. And, of course, more investment in telephone facilities means less of other things (we ignore again the current problem of unemployment). But a "pay phone in every Canadian home" hardly seems a practical suggestion although a variant of such an approach is in effect in most European telephone systems (where, it must be admitted, the service provided is usually much inferior to that provided in Canada).

Bell Canada is trying such a metering system on an experimental basis for some business phones. One problem, as we understand it, is not only the cost in metering calls[17] but in providing an itemized statement listing each call as is done now for toll calls.[18] One cannot help but wonder if it would not be possible to adopt a system under which those who wanted an itemized statement would be required to pay a small charge to cover the out-of-pocket expense. In any event, Bell is moving in the right direction by the adoption of "unit sensitive pricing" although very cautiously – probably too cautiously from a public interest point of view.

[17] The author was advised by a computer communications specialist that the cost of metering drops significantly when stored program switching is installed.

[18] Moreover, the major extensions of the boundaries of local calling areas subject to flat rate charges that keep taking place are perverse from a usage sensitive pricing point of view. That is not to say that these changes are not popular with subscribers in the more remote urban areas affected and presumably make financial sense to the various telephone systems given the bases on which their rates are presently established.

The problem just described is compounded because of the existence of peak loads: daily peaks, weekly peaks, seasonal peaks and holiday peaks. The call rate fluctuates widely. But if the quality of service is to be "perfectly" maintained, the facilities must be extensive enough to handle the greatest loads. This implies, of course, that there are times when the facilities operate far below capacity. As we all know, the problem has been ameliorated substantially for toll calls by providing a rate structure that encourages off-peak usage. Because these rates are known in advance behaviour can be adjusted accordingly to take advantage of the lower rates for non-urgent calls. But the pattern of peaks with respect to local calls is probably much less stable (a severe storm could create a peak) and there would be no means of informing subscribers that charges were going to be higher for the next few hours after such unpredictable events have occurred. Unless the premium rates charged at such peak periods were known in advance no smoothing of usage could be accomplished – just erratic fluctuations in subscribers' bills. The problem seems intractable.

The use of telephone rate structure to tax[19] some in order to subsidize others has been alluded to before. Such structures – and they are found in transportation, power utilities and many other sectors – are anathema to most economists. "Impose explicit taxes on the incomes of the rich and give the *money* to the poor" is the dictum. In part their objection springs from a view that hidden taxes and subsidies distort the use of resources making the nation poorer for the reasons set forth earlier. It is also held that openness is desirable, in and of itself, because it keeps governments accountable.

The second objective is more persuasive than the first because the first ignores, among other things, that most taxes and subsidies also result in distortions. In any event, unless some form of general negative income tax were introduced an explicit tax-subsidy scheme confined to telephone subscribers to replace the present implicit scheme would seem highly unlikely.

Two particularly objectionable features of the existing cross-subsidization arrangements should be noted. The first is that the magnitudes of these taxes or subsidies are not known, at least to the public. Secondly, the notion that business subscribers should subsidize residential subscribers through imposing higher rates on business both in local calling areas and for toll calls (that are thought to be predominantly business calls) is a victory of appearance over reality. After all, all business costs are ultimately borne by consumers in the prices they pay for the goods and services they buy.

[19] That is to say, charge more for a service than the cost of providing it warrants in the case of a "tax" and conversely in the case of a subsidy.

7. Some Issues in the Regulation of Broadcasting

The airwaves are a common property that, if used without control or limitation, would become valueless. That is to say, if unregulated, the airwaves would be so inundated with broadcast signals that no discernible signal could be received – except that of the bully with the most powerful transmitter. The airwaves are like a highway. If there were no enforced traffic rules the highways would be unusable except perhaps for tanks! That there must be some rationing of the use of the airwaves seems inescapable. What is less obvious is the basis upon which licenses should be granted. Why are they not put for auction for a dollar price? The aspiring broadcaster could determine the price he could afford to bid for one of the licenses – given his estimate of the revenues likely to be obtained and the costs likely to be incurred. The potential revenues would depend upon anticipated advertising revenues which, in turn, would depend upon the number of listeners or viewers likely to be attracted. Potential costs would depend upon, among other things, the cost of material for broadcasting whether by production or purchase. Obviously, the cheaper the material the smaller the size of the audience and the lower anticipated advertising revenues, generally speaking.

This seemingly simple approach poses at least two problems. The first is that, although licenses do expire every few years and the practices of licensees are then reviewed by the CRTC, in fact, at least until recently, automatic renewals have been, to all intents and purposes, universal. Compliance has been largely ignored. To change the practice now would be to bestow some extremely large capital losses on some of the present licensees. Fair or not, the outcry from them would be, to put it mildly, considerable.

But there is another reason: the apparent collective concern about broadcast content in Canada. Although there would seem no reason why content could not be controlled by stipulating conditions as part of the auctioned licenses (and policing compliance) it probably would be politically unacceptable to appear to be "auctioning off" a piece of Canadian culture to the highest bidder.

Somehow it has been decided that there is a national purpose to be served by educating and inspiring (dare we say and perhaps sometimes brain-washing!) Canadians with Canadian material. This Canadian content concern seems to involve, on some occasions, the matter of Canadian theme (e.g. plays, songs, films, and so on, of particular relevance to Canadians). But there is another side too, the protection from foreign competition of Canadian talent (e.g. providing greater opportunities in Canada for writers,

actors, singers, musicians, directors and the like, born in or living in Canada. Both purposes can be looked upon as an exercise in the creation and maintenance of a Canadian identity. That is to say, creating in the minds of Canadians a shared pride both in a common way of life and in the quality of our creative talent. Worthy purposes indeed.

The protectionist aspect of "Canadian content" is as crass, and presumably as inevitable, as the demands of the Canadian boot and shoe manufacturers for higher tariffs against imports. Higher tariffs against foreign shoes would make them less competitive with Canadian produced shoes and thereby make it possible to produce more shoes here (thus raising wages and profits and hopefully the number of jobs).

Needless to say, the laudable but extraordinarily vague national purpose is inextricably intertwined with the more mundane, narrow interests of some of those involved in Canadian broadcasting – directly or indirectly – as a source of income and/or prestige or both.

What seems to have happened is that the regulatory authorities frequently seem to have granted licenses on the bases of requests replete with *declarations* of the applicant's intent to foster national identity, pride and consciousness. The decisions perforce have been highly discretionary. (One has the feeling that too often a glowing statement of good intent was taken at face value although it hardly represented the applicant's real intent.) The Commission, in other words, seem too often to have allocated licenses not to the highest bidder in dollar terms but to the highest bidder in rhetorical terms – a rather different currency! But there seems little doubt something was accomplished for Canadian culture. That the procedure bestowed substantial financial advantages on some of the most persuasive applicants is beyond question.

One cannot discuss broadcasting without discussing the role of the Canadian Broadcasting Corporation (CBC). As is well known, the CBC is largely financed by the Canadian taxpayer. But about $70 million annually is derived from advertising revenues – largely from the sale of American programs shown during prime time. In addition, the CBC's affiliated stations are, in essence, rebroadcasting these CBC purchased American programs.

It seems ironic that the taxpayer carries most of the financial burden of maintaining a vast broadcasting system for what might, be called, "the national purpose". However when the viewing audience is greatest the material carried is largely American purchased essentially by advertisers who are often Canadian subsidiaries of American corporations. The CBC undoubtedly makes a profit on this kind of transaction. That is to say, the advertisers pay more for an American program than it costs the CBC to purchase it. Presumably too, these "profits" are used to produce Canadian "content" programs that could not otherwise be financed from the CBC's receipts from government. Nevertheless, if these Canadian programs are

infrequently shown on prime time, as appears to be the case, it is difficult not to question whether much, if anything, is gained. Certainly much is potentially lost by not having first class Canadian material *always* available in prime time on the highly subsidized CBC network.

Another of the many ironies that pervade the broadcasting sector in Canada is that the CRTC's approval of the Global TV network's application (which, it is rumoured, was done to countervail the broadcaster's objections to the Commission's proposed higher Canadian content rules) has resulted in all broadcasters bidding higher and higher prices for American commercial programs. The effect is, of course, less profit to finance Canadian content programs and a bonanza for American commercial television production interests.

Several forces have been at work in creating the current situation. Although it is their own child, federal politicians are certainly suspicious of, and some seemingly downright hostile to, the CBC. The CBC sometimes embarrasses them. This can be looked upon as a kind of endorsement of the CBC's independence. But it also makes it extremely difficult for the Corporation to obtain additional funds. Politicians find it prudent to keep what they deem to be a vicious dog on a short leash. Budget stringency is, after all, an effective form of control. The Corporation also has to bear some part of the responsibility. The notion that success should be measured by Neilsen ratings was an easy trap to fall into, particularly when these ratings have consistently been used by members of Parliament as an extremely important criterion – if not the only criterion – by which the CBC should be judged. But the preoccupation with Neilsen ratings misses the point entirely. If ratings are the name of the game rather than some larger, national purpose why have massive taxpayer subsidies? The idea of obtaining "profits" from the sale of American programs to finance largely unseen Canadian programs also must have offered a temptation to the CBC staff that could not be resisted. "Better to be involved in an unseen program than not be involved at all!" One can well imagine the intraorganizational struggles that led to the creation of the existing, unsatisfactory situation.

Another factor appears to have been the CRTC's approach to pushing its Canadian content objective. If the Global network approval was motivated primarily by what seems to have become a Canadian content objective its effects may well have been perverse, as previously explained.

If the CBC's budget were increased to compensate, let us say over a five year period, for lost net advertising revenues from the sale of American commercial programs, what would be gained and what would be lost? In our view, the gains would far outweigh the losses. There then would be a truly Canadian alternative in prime time all of the time. The danger is that the CBC would, in the absence of competition and a short political – budgetary leash, become either slovenly or irresponsible or both. There are no easy

answers to these potential dangers but the BBC does not appear to suffer too severely from them and some version of the British model might be considered.

Another idea, not unrelated to what comes later, is that the CBC (put on the basis just described) and at least some aspects of the National Film Board might be more closely integrated if not completely merged. Their combined video program production capacity would be substantial. The programs thus produced could not only be broadcast by the CBC but could be made available (perhaps with a time lag) free of charge to other broadcasters and to the cable companies. After all, the video tapes would be public property!

8. Some Issues in the Regulation of Cable Television

The regulatory questions raised by cable TV are particularly perplexing (and hence interesting!) because they inexorably involve both broadcasting and telephony, in addition to the unique aspects of the sector itself. Broadcasting provides the lion's share of the input that is carried by the cable TV systems; telephone systems provide rights of way and, particularly in the past, many of the transmission facilities employed (as distinct from the drops to individual subscribers). The cable companies on the other hand, provide the antennae, the amplifiers, the drops and, to an increasing extent, some of the transmission facilities.

It is obviously impossible in this brief compass to set forth and analyze all of the policy issues involved. The ensuing discussion is therefore highly selective and inescapably superficial. We will proceed, regrettably, on this basis: from the consideration of the more immediate questions to some that are much more remote in time if not in significance.

8.1 FEDERAL JURISDICTION

Any uncertainty concerning the constitutionality of the federal regulation cable TV has been dispelled by the recent decisions of the Supreme Court of Canada discussed earlier. These decisions were greeted with enthusiasm by the Canadian Cable Television Association[20] largely on the basis that one set of federal rules was preferable to ten sets of provincial rules all potentially different. One cannot help but wonder, however,

[20] See *Globe and Mail*, December 1, 1977

whether this is the end of the matter for four reasons. First, the basic logic advanced by the majority in the Supreme Court decision is, to say the least, questionable. One would suppose that the purpose of the relevant sections of the BNA Act was to assign to the federal government functions that had interprovincial ramifications. These ramifications are certainly relevant to broadcasting *per se* but they are obviously not relevant with respect to cable TV. Secondly, the Quebec justices of the court were unanimously opposed to the decision. Thirdly, provincial governments representing the vast majority of the Canadian population were intervenors against the federal claim of jurisdiction. Fourthly, the demand for general constitutional change with a strongly decentralist emphasis is certainly gaining momentum. It would be surprising if, in the face of these factors, that the present situation were not altered significantly in the relatively near term either by federal-provincial agreement or by constitutional change.

8.2 COMMERCIAL DELETION

The CRTC's early attempts to protect Canadian broadcasting, and thereby encourage more Canadian content, by requiring the deletion of commercials included as part of programs broadcast in the United States and carried by Canadian cable TV networks now appears increasingly less necessary. The changes in the Income Tax Act prohibiting the deduction for tax purposes of expenses incurred by Canadian corporations in purchasing American TV advertising time has reduced the previous practice of trying to sell goods and services to Canadians by means of American broadcast commercials.

Simulcasting could well prove to be an even more important factor in achieving the CRTC's goal without commercial deletion. With simulcasting, the Canadian broadcaster acquires the right to broadcast in Canada an American produced program simultaneously with its broadcast in the United States. The Canadian broadcaster then notifies the relevant cable operators to substitute the Canadian broadcast of the program, replete with Canadian advertising, for the American broadcast of the same program which, of course, contains advertising directed primarily to its potential American audience. Simulcasting increases the size of the Canadian broadcaster's audience and hence his advertising revenues.

The *Globe and Mail* reports (December 7, 1977, p. B4) that 55 hours weekly of simulcasting are now done in Canada (mostly in Toronto and Vancouver) and that the acceptance of the approach is growing rapidly. The whole idea seem so eminently sensible both from the broadcaster's and the cable operator's points of view that one cannot help but wonder why it was not implemented earlier. Whether simulcasting will, in the event, lead to

more and/or better Canadian content in Canadian broadcasting is, of course, another question.

It is important to note that simulcasting entails a kind of partnership between Canadian broadcasters and cable TV operators. Up to this point, the broadcasters (except those located far from the border) could only look upon cable operators as "the enemy" because a high proportion of cable TV subscribers subscribed in order to see American broadcast programs. And this, of course, reduced the Canadian broadcaster's audience and advertising revenues. As we will discuss later the potential longer-term implications of the emerging relationships between Canadian TV broadcasting and the Canadian TV cable companies could be quite startling.

8.3 TELEPHONE SYSTEM CHARGES IMPOSED ON CABLE TV

If unregulated, telephone systems, by levying sufficiently high charges for the use of their right of way, conduits, poles and, in some cases, transmission facilities, could reduce the TV cable companies profits to zero.[21] But these charges *are* regulated by the CRTC for the telephone companies under its jurisdiction. Several months ago the telephone companies were granted a rate increase with respect to these services but on the understanding that they had agreed to sell outright to the cable operators the transmission facilities that they now lease to them. The terms of these sales are still being negotiated and the conditional rate increase has not yet come into effect.

If there were ever an instance where rate regulation was absolutely essential this surely is it. What the "appropriate" rate *should* be is an impossible question to answer. Leaving aside the dedicated cable TV transmission facilities, the cost to the telephone companies of sharing the same right of way, conduits, etc. must be close to, if not, zero. The problem would disappear, *in a sense*, if cable TV and telephone services were under common ownership. But the question of the appropriate charges to the subscriber for cable TV relative to telephone services would arise – the same issue under a different guise.

As though some of these relatively short-term questions were not sufficiently difficult, the mind boggles at the complexities involved as the time horizon under consideration is extended. Over the longer term many interrelated questions arise.

1) What are the likely changes in the relative costs of transmission facilities (e.g. fibre optic cables, satellites, coaxial cables and paired

[21] By the same token, if the cable companies had to start from scratch subscriptions rates would be prohibitively high.

cables) relative to the cost of the "black boxes" that increase the carrying capacity of the paired copper wires now used by telephone systems? The answer would require, among other things, a prediction of the timing and characteristics of future technological change – an utterly impossible exercise.

2) Under alternative assumptions about these potential changes or relative costs, what would be the "optimum" investment strategy over the next decade or so, *considering the communications industry as a whole,* for markets of different sizes and densities?
3) What would be the likely average capital cost per subscriber under each of these assumptions? (Note these data would provide the requisite long-run marginal cost prices discussed above!!)
4) What would be the effective demand (the schedule of quantities that would be taken at alternative prices), for such switched, two-way, video-audio communications? (Because one can only dimly imagine the kinds of uses to which such a presently non-existent system would be put if it were available, the question – important as it is – is inherently unanswerable).
5) Because many cable TV networks have significant excess capacity (one cable company in Toronto reports at least 20 percent excess video channel capacity), is it not likely that video broadcasting might eventually become obsolete in the larger urban centres? The signals could be fed directly into the cable for distribution without the types of interference often encountered in transmissions carried by the airwaves?
6) If fibre optics, with their enormous channel capacity, were to become extraordinarily inexpensive so that each subscriber drop carried, let us suppose for the sake of illustration, the equivalent of 300 video channels, it would be technically feasible to adopt a type of pay TV system on a grandiose scale. Each subscriber would, by dialing a particular number on his telephone, engage a device that would simultaneously trigger his access to the desired channel and record and accumulate the subscriber's charges. Are subscriber's information needs sufficiently diverse and so intense that such a system could be "loaded" and the services sold at prices that would cover cost plus profit?

These largely unanswerable questions have been set forth in an attempt to convince the reader that in the face of so much inescapable uncertainty about vital factors it is imperative to devise a regulatory policy strategy for communications that does not inhibit the rational development of the industry *as a whole* as the future unfolds. The short-term regulation of cable TV should always be considered in this wider context. Flexibility is not costless, but it is less costly than a series of piecemeal cost minimizing steps

that inexorably take us to a destination not consciously sought and judged to be grossly unsatisfactory when reached.

To conclude this section it seems not inappropriate to make a point that is particularly relevant to any consideration of the possible future government policies respecting cable TV. The point to be made is also relevant to all regulatory changes, particularly those that involve the conditions of licensing (e.g. broadcasting).

Having granted cable licenses that, at least in some cases, were highly profitable, it is extremely difficult politically to take them back, either by revocation or non-renewal without compensation. A benefit bestowed by grant quickly becomes, at least, in the mind of the recipient, a benefit "by right". Almost by definition, such a grant is irretrievable except where compensation is paid to those who have been granted the windfall gain by the regulatory authority.

9. Private Telecommunications

As indicated at the outset, there is a wide spectrum of technically feasible bandwidths and different bandwidths are required for different kinds of telecommunications. At the narrow end of the spectrum are message/record services like TELEX and TWX (the first being the trade-name of the services provided by CN/CP Telecommunications and the other being the trade-name of an essentially identical service provided by the TCTS) and at the wide end of the spectrum are video transmission services (also provided by both systems). And there are a large number of specialized services that require bandwidths lying between these two extremes. Most of these services are also provided both by CN/CP and the TCTS.

What is of particular significance in the context of this paper is that the TCTS provides – indeed, is required by law, to provide whether profitable or not – public telephone services with which we are all familiar and has chosen to provide these additional specialized telecommunications services on what is termed here a "private subscriber basis." This term is used to indicate that these services are provided when and only when the TCTS members believe that they will be profitable to them. CN/CP Telecommunications[22] on the other hand, is not permitted, by law, to provide public telephone services[23] and is therefore necessarily restricted to the sale of services on a private subscriber basis.

[22] There are other telecommunications carriers providing services on a private basis but they are ignored here.

[23] As indicated above, CN Telecommunications provides public telephone services in some relatively remote areas.

In brief, the TCTS offers the whole of public *and* private telecommunications services *as an integrated system*. CN/CP is restricted to offering private services only. These are not integrated with the public telephone system because, for obvious reasons, the interconnection capability enjoyed by TCTS gives it a substantial competitive advantage in the sale of its private services relative to CN/CP and therefore has been denied by the TCTS to CN/CP. The latter has applied to the CRTC for an order that would require the TCTS to grant partial[24] interconnection rights and this application, not surprisingly, is being contested by the TCTS. The substantive hearings before the CRTC are expected to take place early in 1978.

That CN/CP would seek partial integration with the public telephone system is obvious even if only to compete more effectively than it now can even given *existing* subscriber demands. But the issue takes on much greater urgency when the expected growth in the demand for some types of computer linked services are taken into account. A whole panoply of computer programs now exist that would be extremely attractive to a multitude of smaller businesses if they had access to them – particularly if they could have access from many different locations and on a sporadic basis.

An example might serve to clarify what is involved. Suppose there were a standard computer program that was capable of handling all of the data required to establish production schedules, delivery data, cash flow estimates, and so on for a typical firm. Suppose further that the program could be readily modified to meet the special needs of individual firms and that the computer had the capacity to provide the same basic services for a large number of firms. Suppose even further that by means of typewriter terminals connected to the computer through the public telephone system each firm could update its own data and obtain immediate "answers" to a whole range of specific questions. For example, a salesman on the road could through his terminal immediately ascertain the delivery date for a particular product – information on which a sale may depend. Similarily, the production manager could, with such a system, obtain data on inventory changes, and so on. The point is, of course, that the smaller firm's use of such a computer would be inadequate to warrant its fulltime rental. *And* the same is true of the transmission facilities between the firm's terminals and the computer. Dedicated lines would be grossly underutilized even if feasible (e.g. the travelling salesman problem).

The potential market for these kinds of computer-telecommunications services is undoubtedly vast and could be highly profitable. The denial of interconnection would, to a great extent, exclude CN/CP from this high growth area. To compound CN/CP's difficulties, if these computer oriented

[24] CN/CP does not seek interconnection between the TELEX network and the TCTS's TWX network nor between its Infoswitch network and TCTS's Datapac network.

telecommunications services grow as anticipated they would almost certainly do so, to a considerable extent, at the expense of message/record services. And TELEX is the cornerstone of CN/CP's current system. The great importance CN/CP assigns to its application for interconnections is, therefore, quite understandable.

The TCTS rebuttal contains, among others, the following points:

1. TCTS toll calls (and the sale of other services utilizing long distance facilities) subsidize local calls and rural telephone services.
2. Even without the requested interconnection rights the existing CN/CP network, although limited, tends even now to depress long distance revenues, particularly with respect to business usage.
3. Interconnection, if granted, would further constrain long distance TCTS revenues and force an increase in local-rural telephone rates if the regulators were to continue to use the "fair rate of return" criteria in setting public telephone rates.

In short, the public telecommunications carriers (Bell Canada in particular) consider the CN/CP application for interconnection as an attempt to engage in "cream skimming". As the phrase denotes, this means the TCTS believe CN/CP would be taking the fat and leaving the TCTS with the skimmed milk (which largely consists of water!) if interconnection were granted. Several general observations come to mind when considering this debate. They are discussed below in no particular order.

"Cream skimming" is only possible when there are discriminatory rates in effect. That is to say, there are rates set for some subscribers that contribute more to revenue than the costs of providing them. Given that the whole rate structure is designed to provide a target rate of return on investment to the public telephone system, the converse must hold that the rates for some other services must not provide revenue sufficient to cover their cost. This would suggest that by objecting to "cream skimming" the telephone companies are, in some sense, endorsing the degree and kind of cross-subsidization embedded in the existing rate structure. This raises the question as to the underlying purpose of the telephone companies in taking such a stance knowing full well that, unless they change their rate making rules fundamentally, *if the CRTC were to grant interconnection and thereby substantially reduce public telephone service revenues it would then be necessary for the CRTC to grant public telephone rate increases in order to restore telephone revenues adequate to achieve the rate of return targets.* If full compensation is guaranteed why worry about the possibility of damages? Whether local-rural public telephone subscribers should be subsidized is, in part, an "efficient allocation of resources" question. The vast majority of qualified, independent economists would be opposed to this kind of cross-subsidization if strictly economic criteria alone were brought to bear. The argument for cross-subsidization thus hinges crucially on political-social

considerations about which, one can be certain, the CRTC is not unaware. If, as Bell argues, interconnection were to necessitate higher local-rural public telephone rates to compensate for the lost revenues this undoubtedly would be construed by many subscribers (voters!) as the consequence of providing a benefit to "business". A favourable decision of the CRTC with respect to the CN/CP interconnection application would hardly be popular with the average Canadian if the TCTS argument were accepted by him as valid.

With compensation "guaranteed" and the obvious political advantage on their side why then the public telephone carriers strong opposition to interconnection? The "answer(s)" can, of course only be speculative but, in the author's opinion three factors are seemingly involved. First, telephone company executives have acquired the view that they have some kind of "right" to their highly profitable toll service revenues. That the "right" was created and conferred by government as a kind of gift has been lost sight of, as is not uncommon when governments attempt to withdraw what they have granted. This is a psychological issue not a legal issue. That does not make it any less real to those whose positive expectations are threatened. At least two other factors are also probably at work. Competition, however limited, is not consistent with the achievement of a quiet life for executives. Furthermore, most large organizations have an intrinsic imperative: *keep expanding.* When the expansion is in a direction that is technologically exciting this imperative is almost certainly reinforced.

Having said all this, another and contrary question must be posed. Would the public suffer if interconnection were denied and, to assume the most extensive consequence, CN/CP eventually were to cease to operate? (We ignore here CN's public telephone service in some remote areas.) To put the matter the other way, is there not a high probability that if we had two giant systems, TCTS and CN/CP, providing largely identical private telecommunications services with interconnection that they would tacitly collude so that their rates would be the same? Would there not also be much underutilized capacity in the hands of each of them? Would the wrenching adjustments that conceivably might be required as a result of interconnection provide benefits great enough to offset the financial and political costs? Would the result really be more equitable?

These questions, like so many in telecommunications, are not capable of definitive, objective answers. In the author's opinion, even severely limited competition is much better than no competition and should be maintained if at all feasible. Secondly, there are a whole range of options available. It is *not* simply a matter of interconnection or no interconnection. The CRTC could require the TCTS to allow interconnection at rates charged CN/CP that would leave the present cross-subsidization structure largely unaffected if that were deemed to be desirable on social-political-equity grounds. A specific recommendation is provided in the concluding section.

10. Some Issues in the Regulation of Long Distance Transmission

In the immediately preceeding sections we have been discussing each of the major communications services. The purpose of this section is to examine briefly some regulatory aspects of a *function* that is involved, to a greater or a lesser degree, in the provision of each of these services. The technical and capital cost aspects of the alternative modes of long distance transmission have already been sketched: they encompass primarily microwave systems, cables of several types and satellites. The TCTS owns two trans-Canada microwave systems, CN/CP owns another and Telsat[25] owns three satellites.

The highly controversial set of regulatory issues centre around Telsat. From the outset the TCTS (and Bell Canada in particular, of course) have called the tune a great deal of the time. In order to persuade the TCTS to participate the government agreed that Telsat would lease full channels only. This necessarily excluded all but the largest potential users – TCTS, CN/CP and the CBC. The federal government investment of $30 million (the same amount as the TCTS subscription) was therefore ineffective in increasing competition in long-distance transmission – one of the ostensible purposes of Telsat – right from the start. Nor is this the end of the story.

One of the severe technical limitations of the three operating satellites is that they are designed to transmit on a spectrum of wavelengths that are also used by existing Canadian radio and television broadcasters. To avoid Telsat signals interfering with the latter, Telsat has had to build earth stations in remote locations and users have had to "back haul" signals from these remote locations to urban areas – an additional cost that has offset some of Telsat's intrinsic "distance insensitive" advantages, particularly for shorter distances (as measured on the earth's surface!)

The proposed "answer" is a new troika of satellites operating on different wavelengths. It is also claimed that occupying the three waiting locations in space allocated to Canada is imperative because they might otherwise be encroached upon by other nations.

But once again, in order to finance through bank loans the new generation of satellites (expected to cost about $130 million), the government has, to all intents and purposes, assigned control of Telsat to the TCTS in exchange for revenue guarantees (expressed in rate of return terms) made by the telephone companies. By so doing, the government overturned an earlier CRTC decision and agreed to a number of additional conditions that,

[25] Telsat shares are held as follows: Government of Canada 50 percent, Bell Canada 24.6 percent, CN/CP 7.5 percent. The balance of the shares are held by other TCTS member telephone systems.

if effective, would all have the result of precluding many of the uses of the satellites that would have introduced greater competition into long-distance transmission.

The problem is *not* that the taxpayers have been "had" in a narrow sense by the new arrangements because Telsat now has no outstanding financial obligations to the federal government.[26] The forestalling of potential competition is the issue.

Consider the implications of three conditions imposed on Telsat.

1. only full-channels to be leased (as before);
2. the location of new earth stations for Telsat use to be administered by the TCTS members;
3. Telsat not to engage in land-base communications.

Fortunately, the implications may not be nearly as negative as they appear at first glance. Indeed, it seems entirely possible that the attempt by the telephone companies to block further competition on long-distance can be frustrated by two important and related factors. On the access side, the minister has requested Telsat to drop the "full channel only" limitation for regulated common carriers. But this leaves unanswered whether or not consortia of cable TV operators, broadcasters and provincial educational authorities will, by one means or another, be accorded the same opportunity. One can certainly hope that this, indeed, will be the case. On the reception side, if, as stated before, ground stations are becoming increasingly inexpensive and if, as the government has indicated, such ground stations could be put in place by private interests or provincial government agencies, the present degree of competition with respect to the long-distance transmission aspect of mass communications could not only be maintained but enhanced.

The regulatory issue would then be reduced to the determination of the appropriate rate per satellite channel. This is a manageable problem because capital and operating costs could be readily ascertained and U.S. rates charged for comparable services would provide a valuable benchmark.

As far as private long distance communications are concerned, the fact that CN/CP has a microwave system and a satellite channel could ensure further competition particularly if interconnection were granted for the reason and on the basis discussed in the previous sections and in the concluding section.

11. Federal Provincial Relations

There are many reasons for federal involvement in the regulation of communications. Some of them are discussed in this section.

[26] *Toronto Star,* Dec. 3, 1977, p. A6

Broadcast signals do not respect political boundaries. Because, as explained earlier, the airwaves have limited carrying capacity some form of rationing is essential. To minimize the likelihood that broadcast signals emanating in one province do not pre-empt the airwaves in another province, federal regulation is clearly desirable. (The alternative, interprovincial agreement similar to the present US-Canada agreement on broadcasting would, presumably, be less effective.)

Telephony poses a different set of problems. First, it must be acknowledged that national boundaries do not now preclude telephone calls that span most parts of the globe. The message may be transmitted across many borders utilizing the telephone facilities of many nations each with its own regulatory-ownership-rate structure. This is achieved by complex international agreements that one may presume offer advantages (although not necessarily to the same extent) to each of the signatories.

Obviously, when we are considering public long distance telephone services, the principal issue is the rates charged by a jurisdiction for handling "foreign" origin calls passing through it on their way to still another "foreign" destination. If a jurisdiction acting solely as a conduit provides a service or facility necessary for the completion of the call it can charge a rate that is just slightly lower than the cost involved if the call were routed around its jurisdiction, assuming alternative routes are available. In short, the jurisdiction through which the call passes can act like the pirate imposing discriminatory charges for the use of a bridge.

The residents of the jurisdiction have, of course, no reason to object except if they themselves are held to ransom by other jurisdictions that exercise the same power in retaliation. Hence the need for interjurisdictional agreements and the willingness of the parties to negotiate them. In Canada these agreements have been hammered out by the TCTS members and, to all intents and purposes, rubber stamped by the CRTC. It is difficult to imagine that something similar to the TCTS would not have arisen even if the federal government did not have constitutional jurisdiction over interprovincial telephony. *What is surprising was the CTC's demonstrated lack of concern for the level of the toll rates proposed by the TCTS for, if there is a national interest in telephony, it is to facilitate communications within Canada.* High interprovincial toll rates are hardly consistent with that obvious objective although they may serve other objectives – some of which have already been discussed.

Consider the following toll call rates quoted by telephone operators in December, 1977. All rates are based on three minute, operator handled, station to station calls made on weekdays and placed during business hours. The distances covered by each of the pairs of calls are approximately the same.

Toronto-Vancouver	$3.70
Buffalo-Vancouver	$2.80
Toronto-Portland, Oregon	$2.80[27]
Buffalo-Portlant, Oregon	$2.25
Toronto-Athens, Greece	$7.35
Buffalo-Athens, Greece	$6.75
Winnipeg-Regina	$2.25
Winnipeg-Minneapolis	$1.90

What is immediately apparent is that Americans pay substantially less for toll calls than Canadians. Of particular interest is the comparison of the Buffalo-Portland rate of $2.25 and the Toronto-Vancouver rate of $3.70 – a difference of $1.45. In this comparison each call is made entirely within its own national system. Clearly, in this case, Canadians pay 64 percent more than Americans for essentially the same telephone service, for the differences in distance, terrain, etc. are insignificant! It is true of course, that the volume of traffic in the United States is much greater than in Canada because of the major differences in population. This perhaps would justify some differential. But it is also true that the TCTS asserts that toll calls are extremely profitable relative to the other services the members offer. If one accepts the proposition that one of the most important national interests in the federal regulation of telephony and perhaps its only interest is in facilitating communications within Canada the toll rates approved by the CRTC seem to require some explanation, to say the least!

One suspects that the CRTC (and its predecessor the CTC) was only too pleased to acquiesce in high toll rates as a means of minimizing the rate increases imposed on urban-residential and rural subscribers. While the author has not investigated the matter, it would be interesting to examine past interventions on telephone rate increase applications in order to determine the extent to which objections to toll rate increases were presented. The suspicion is aroused that the *national* interest in telephony was essentially ignored by the intervenors *and* by the *federal* regulatory agency whose principal raison d'etre surely is to serve that interest.

Assuming that this national interest in intraprovincial telephony is real, and leaving aside whether or not the degree to which it has been pursued in the past has been adequate, what is the justification for any federal involvement in telephony other than the legal nicety that Bell Canada and British Columbia Telephone are federally incorporated?[28]

[27] It seems reasonably clear that this call is routed through the United States.

[28] It is understood that the change over to provincial incorporation would not involve serious legal difficulties if that were desired by the companies concerned.

One disadvantage in regulating only interprovincial toll rates at the federal level would be the problem created in isolating the particular costs and revenues associated with these toll services for ten separate telephone systems each operating under a separate, provincial regulatory agency. Undoubtedly, there would be a temptation on the part of the regulatees and their provincial regulators to play accounting shell games which would have as their purpose overstating the costs of interprovincial toll calls and understating the revenues derived from them. While this is certainly not a trivial problem, and it would be intensified if the federal regulation of Bell Canada and British Columbia Telephone were discontinued (other than with respect to interprovincial toll rates), it is nevertheless true that the interprovincial rates of eight of the ten TCTS members are not now regulated by the federal government.[29] One would think it not beyond the wit of the eleven governments' concerned to arrive at a common cost accounting system that would provide the relevant data on a consistent basis. Moreover, there would be three other checks available:

1. With interconnection, CN/CP's interprovincial service costs and revenues would be available as a check.
2. With the rate charged for satellite channels regulated on an easily established cost-revenue basis, long-distance transmission costs would be knowable with considerable precision.
3. U.S.-Canadian toll rate comparisons would also be available as a further check.

It perhaps should be emphasized too that federal control over interprovincial telephony would have to encompass more than rate matters. Consider the hypothetical proposals cited below.

a) Proposed: a national computerized banking communications system using integrated computer modules in each centre. Rejected by one province that insists that its own interface, which is incompatible with that adopted in the others, be adopted. Result: no national network.

b) Proposed: a national reservation system for all major hotel chains. One province rejects the idea of different entities sharing the same system. Result: no national reservation system.

c) Proposal: a national TV distribution system for one of the networks utilizing satellite with local distribution through cable systems provided by provincial telephone systems. One province could rule that interconnection between its cable system and the satellite was unacceptable. Result: no national TV distribution system.

d) Proposal: a national, public date network is developed. A provincial

[29]The federal regulation of these two companies provides the CRTC with data that presumably would be valuable in assessing requests for interprovincial toll call rate changes generally.

telephone system applies for permission to obtain a loan to finance its participation. Rejected by regulator as too expensive. Result: no national data network.

Clearly, if the federal government were to remove itself (or be removed) from the regulation of interprovincial telephony it would still have major responsibilities that only it would discharge if national systems of these kinds were not to be blocked by mindless provincial intransigence. With the right of interconnection granted to CN/CP this kind of problem would certainly be greatly ameliorated, if not fully resolved.

The situation with respect to cable TV borders on the bizarre. As indicated earlier, court decisions, based on the idea that broadcasting and cable are essentially one, assigned the regulation of cable TV to the federal government. But here, unlike broadcasting, interprovincial spillover effects are completely avoidable and the common property resource problem therefore non-existent.

The only arguments for federal regulation of cable TV (leaving aside the legal argument that the author believes to be specious)[30] would seem to be:

1) the financial position of federally regulated broadcasters can be adversely affected by the cable companies because they import competitive U.S. programs;
2) The cable companies can be used as yet another vehicle for the generation and propagation of Canadian content – a goal that perhaps would not be pursued as vigorously under provincial regulation of cable TV.

The first of these arguments is, in our view, false. The private broadcasters applied for their licenses: they were not thrust upon them. They were promised neither an "adequate" rate of return nor protection from competition via a technological innovation. The only obligation of government is to maintain a broadcast service in relatively small communities, not to maintain particular broadcasters. In any event, this issue is of much reduced importance now for the reasons discussed in some detail earlier (in particular simulcasting).

If all else fails, could smaller communities not be serviced adequately by a local cable TV operator who could provide a wide range of programs (including "national purpose" CBC programs) by means of ground station picking up Telsat TV signals?

As far as the second argument is concerned, if the CBC played the role we have suggested, and income tax concessions provided support for Canadian creative talent and provincial governments required all cable TV operators to include CBC programs among their offerings, would the Canadian content objective not be satisfied?

[30] It never seems to have occurred to the courts that without access to rights of way provided by the telephone systems, cable TV companies as we know them, would not exist.

Because of the enormously important role "the Canadian content" question has played in the regulation of communications, let us pursue the matter somewhat further here.

The overriding purpose of the Canadian content rules and regulations clearly has been to foster a shared feeling of *national* pride in order to strengthen the emotional ties holding the disparate parts of this nation together. The problem is not perceived to be, and almost certainly is not, that a high proportion of the residents of Canada wish to see some political merger with the United States. Rather it is that local-regional emotional attachments seem to overwhelm, or be on the verge of overwhelming, loyalties to the collectivity called Canada. The concern about excessive American cultural influence is that it may encourage, by default a demand for more and more local-regional autonomy *not* a demand for American assimilation (except as a consequence of the former if it were carried to the point of complete independence in one or more of the regions).

Assuming that the objective of fostering national pride is entirely laudable, what then are the most effective means to achieve the objective? What are the opportunities? What are the constraints?

1. In a free society it is not only repugnant but extraordinarily dangerous to restrict freedom of information and communications except under the most extraordinary circumstances (e.g. perhaps in a period of total war or of actual civil insurrection). While the deletion of American advertising to protect Canadian broadcasters seems harmless enough, the very notion of deletion of any kind is objectionable and, in the view of the author, unnecessary to the achievement of any national purpose given the alternatives at hand.
2. Voters should not be subtly persuaded by government communications paid for by their own tax dollars if *any* political partisanship is involved. Persuasion is an essential, perhaps the principal ingredient of political leadership. But persuasion should be easily identifiable by the electorate for what it is and it should not be permitted to masquerade under the guise of "fact".
3. The ratings show that many Canadians greatly enjoy watching American commercial television series. This is hardly surprising and in the author's opinion, it need not be a matter of public concern. ("Kojak" is now apparently extremely popular in Poland!) Indeed it would be surprising if this were not to continue. Presumably the proportion of Americans with creative talent is roughly the same as the proportion of Canadians with talent. Therefore the United States has ten times as many creative individuals in absolute terms! It is also true that with a vast potential *domestic* market for successful American commercial productions, investors are willing to pay a great deal for creative talent. It seems highly unlikely that Canada

can or could effectively compete, on a sustained basis, in the situation comedy series entertainment field, for example, at least in such a way as to foster the national identity objective.

This is not to say that with the right tax concessions such series could not be *produced* in Canada and utilize Canadian facilities and talent. But the private investors will, of course, be interested in such arrangements only if the product is potentially going to be sold on the international market. This may well be a desirable result. There is nothing wrong with making Canada a major exporter of video tapes! But it does not contribute much to the realization of the national pride objective *per se.*

What then could and should be done in the communications field in Canada – assuming that the objective and the constraints given above are accepted? The following suggestions are put forth with considerable trepidation. But perhaps they may be suggestive of others that would be superior.

a) Designate the CBC as the principle instrument for the encouragement of Canadian pride – identity objective – in broadcasting.[31] It would accomplish this through the production and/or dissemination of programs of the highest quality in the fields of artistic creativity, art appreciation and an informed interest in public affairs and knowledge generally.
b) Ignore completely the "Canadian content" of the programs of all other Canadian broadcasters and all cable TV operators.
c) Preclude the CBC from accepting any advertising revenues and gear the changes in the Corporation's budget to some objective indicator (e.g. increases in GNP per capita) guaranteed for five year intervals.
d) At the end of each such interval the operations of the Corporation in the preceeding period would be examined by a parliamentary committee that would have the power to call independent witnesses.
e) A process could be established for the appointment of the Corporation's Board of Directors that ensured representation of interest in addition to those selected by the government of the day.
f) The *Annual Report* of the Corporation would include statements made by directors who wished to dissent from the view of the majority.

In short, what is proposed is a kind of public broadcasting system with some of the features of the one now functioning in the United States but with an additional national purpose to be realized through informing Canadians about all aspects of themselves.

[31] The word broadcasting is in some way too narrow for the present purpose because in the fullness of time, broadcasting as a method of distribution may be substantially superceded by other technical modes. (e.g. direct input into cable). This wider sense is intended.

12. Questions

It is extremely difficult to arrive at a balanced view about the desirable future direction of regulatory policy with respect to communications. The mixture of technical, economic and political considerations is, as we said at the outset, extraordinarily complex. But there are decisions that must and will be made and focusing attention on some of the questions may serve a useful purpose in first stimulating analysis and then, one might hope, informed debate.

The questions posed in this section are not only admittedly but intentionally framed in general terms. The decision that will be made, one way or another, will have the broadest implications. It seems to us that the questions should be set forth in the same terms.

1. Why should telephone companies be regulated with respect to their intraprovincial operations by the federal government (except that they happen to be federally incorporated)? Would it not make sense that the two companies which are federally incorporated become provincially incorporated and thus end the federal involvement in telephony within the boundaries of a province, where neither the interests of the other provinces, and hence the national interest, are involved?
2. Has the time not come when the federal government, through the CRTC, stops pretending that the interests of the TCTS members are, almost by definition, coincident with the national interest? If they *are* coincident what *is* the federal role in interprovincial telephony?
3. The federal direct involvement in broadcasting (leaving aside the allocation of the airwaves) seems anachronistic. Would it not be appropriate to increase the CBC budget to the point where it was not dependent on advertising revenues and hence not dependent on the broadcast of American programs during prime time?
4. Alternatively, would it make sense to instruct the CBC not to accept any advertising revenues? Substantially reducing the length of its broadcasting day would be one way the Corporation could accommodate itself to the revenue reduction.
5. Could the CBC not become the designated *national* broadcasting instrument with predominantly Canadian content[32]—broadcasting in both languages, via radio and television, to all parts of the country? (The existence of a satellite and relatively inexpensive ground

[32] One national broadcasting system available to all Canadians carrying predominantly Canadian content would not, of course, entail the exclusion of all "foreign" material such as plays written by Russians or symphonies conducted by Italians or comedy acts including jugglers from the United States or noteworthy dramatizations produced abroad or international events or documentaries and so on.

receiving stations would seem to make this technically feasible and economically viable. With one truly national broadcasting network reaching all parts of the country would there then be a need for the regulatory authority to insist that private broadcast licensees carry a stipulated amount of Canadian content – a requirement that often has been more a matter of form than substance?

6. If there were provincial regulation of telephony (excluding interprovincial and international telephony) and if there were a truly national broadcasting system (one that was entirely financed by the federal government from tax revenues) would there be a valid reason for continued federal involvement in cable T.V.?
7. How can we best insure that the cable TV systems and the telephony systems are developed in such a way that they will be compatible when, over the longer term, some type of integrated network may be both feasible and desirable *without* foregoing the advantages of the maximum degree of competition in the provision of cable TV facilities? (See the list of questions in the section devoted to the regulation of cable TV).
8. Would it not make sense to have the telephone companies responsible solely for dropping a line into the home or office of each subscriber but, like the hydro companies, end their involvement at that point? The attachments[33] inside the subscriber's premise then would be the subscriber's affair and supplied, installed and serviced by competitive firms.
9. CN/CP Telecommunications now provides, and could continue to provide, a useful means of keeping the telephone companies honest with respect to some interprovincial transmissions. Is there a valid reason to deny interconnection if the telephone system charges for interconnection were established so as to protect, *at least at the outset*, telephone system revenues?
10. Why not allow cable TV operators to transmit directly video taped material (with paid advertisements, of course) in competition with broadcasters?
11. Primarily for tax reasons, Canada has become an attractive place, from an investor's point of view, in which to produce feature length films for the international market. Could the same situation not be created with respect to the production of video tapes for television programming?
12. Indeed, to the extent that the purpose of imposing Canadian content requirements on broadcasters and cable TV operators is to protect

[33] Some form of approval process would be essential to preclude attachment defects having perverse effects on the system on a whole.

Canadian creative talent, could the tax approach, now applied to films, not be adopted for other enterprises using Canadian creative talent? Then perhaps the present broadcast regulations relating to this objective could be abandoned. What would be gained and what would be lost as the result of such a switch in policy instrument?

13. Conclusions

The author has been particularly struck in this admittedly broad brush analysis of the regulation of communications in Canada with the points made below. They represent an amalgam of information and personal (biased!) opinion.

1. As it presently functions, the Canadian Broadcasting Corporation accomplishes little that could not be done as well at a lower cost to the taxpayer through other means. In the view of the author, the CBC should be either fundamentally altered or abolished. Would there be any outcry, other than from those whose incomes would be adversely affected!) to an announcement such as this?

   The CBC will leave the air permanently, as of June 1, 1979. (This will allow enough time for the other Canadian networks to negotiate for the rights to the American commercial programs now being shown by the CBC.

   The federal funds now being supplied to the CBC will be reallocated in order to pursue the following objectives:
   - subsidize the distribution of private Canadian radio-TV broadcasts in remote areas;
   - encourage Canadian creative talent involved in the production of audio-video material suitable for broadcasting in Canada and abroad.

2. If the demise of the CBC were viewed by the public with dismay (although perhaps only because some nostalgic tears would be shed in recognition of its early achievements), would it not make sense to completely revamp the Corporation along the lines sketched earlier if abolishing it were unacceptable? This would involve:
   - no advertising revenues to be accepted;
   - no additional federal funding to compensate for their loss;
   - adoption by the federal government of some budgetary formula that would ensure more independence from partisan political pressures on a year to year basis.

- a more representative board of directors including nominees of opposition parties;
- parliamentary review every five years;
- adoption of a much shorter daily broadcasting schedule with the emphasis on quality not quantity;
- less emphasis on the number of viewers and listeners and more recognition that its purpose is to provide a service that is not and cannot be provided by private broadcasters;
- expanded use of Telsat in order to serve remote areas;
- by agreement with the provinces, impose a requirement that one channel offered by each cable TV company be devoted to CBC programming;
- particular attention to be directed in programming towards strengthening a Canadian sense of identity and national pride in the accomplishments of Canadians in all fields of endeavour.

3. With such a national broadcast service in place the CRTC would no longer have to concern itself with the "Canadian content" objective in broadcast regulation, particularly if the income tax concessions now extended to film making were broadened to include other kinds of materials involving Canadian creative talent.

4. All broadcast licenses would henceforth be based on ten year periods and leased at a price determined at auction. It would also be announced that all broadcast licenses coming up for renewal after, say, 1987, would also be allocated in the same manner.

5. The federal government would withdraw from the regulation of telecommunications except in matters of interprovincial concern. The purpose of federal regulation in this field would be confined to facilitating communications that cross provincial boundaries and to encouraging the development of national computer based systems of the kind discussed in the text and similar ventures of national scope.

6. The federal government would withdraw from the regulation of cable television entirely.

7. There is much to be said for considering in the distant future, the development of telephony and cable TV networks as a *potentially* integrated network. But decisions made now in the narrow context of two separate and distinct networks (other than such straightforward matters as sharing of rights of way and so on) could result in major uncoordinated investment decisions being made by both sides. Such decisions

might be judged in the future as needlessly shortsighted because of perverse organizational structures and the pursuit of what, in time, may be construed as parochial interests. This would suggest the need for some kind of coordination, *at least at the long-range planning level,* of the telephone and TV cable systems. This argument could, indeed, be pushed to the point of recommending the gradual evolution of some form of common ownership of the two systems in each jurisdiction.

8. On the other hand, if cable TV operators can install and operate the facilities they require at lower cost than the telephone companies because they are not burdened by massive overhead costs and the constipation of creativity that is inevitably associated with all large organizations (and regulated organizations in particular) this advantage would be lost by common ownership-management. How do we achieve the benefits suggested in item seven, immediately above, without falling into this trap? This, in the author's view, is an extraordinarily important issue that we do not seem willing to confront, much less answer.

9. Of particular concern is the fact that the telephone companies are researching and investing in "black boxes" designed to push more information through the low capacity paired copper wires that are the essence of their existing networks. But it seems quite possible that within a decade or so fibre optics will be sufficiently inexpensive that *transmission,* as distinct from switching, time muliplexing and so on, will be virtually costless. What should be done in the short-run to take advantage of both innovations at the least possible long-run cost to the nation? The federal government, working in conjunction with the provinces and the industry associations, could co-ordinate continuing research and analysis of this question from a combined technical-economic point of view.

10. For reasons that were discussed at considerable length earlier, there seems every reason to grant CN/CP's request for interconnection with the public telephone system but at a rate that *initially* would protect telephone revenues. This charge could then be gradually reduced (at least in relative terms) and the evolving consequences examined. Interconnection does not have to be an "all or nothing" proposition. CN/CP should be maintained as one of the few interprovincial competitive yardsticks available. To reiterate, even limited competition is much better than no competition.

11. From the same point of view, it is of the utmost importance that the federal government in general, and the CRTC in particular, facilitate to the fullest possible extent access to Telsat's satellites (both existing

and proposed) and also facilitate the private and provincial government ownership of ground stations at locations of their own choice.

12. In the course of preparing this paper the author had occasion to discuss most of the issues, often at considerable length, with many well informed individuals working in virtually every part of the Canadian communications industry in both its public and private aspects. The point in making the observation is *not* to imply that the individuals were in any way responsible for this paper's short-comings (the author accepts all of the blame), but rather to indicate that this provides him with an opportunity to observe, in an admittedly casual way, the time, money and talent involved in government policy making and what is commonly dubbed "compliance" with respect to communications. He has the impression that, on the private side, some of the most (and perhaps *the* most) competent executives, supported by large staffs and coteries of lawyers and accountants retained for the purpose, are involved virtually on a full time basis in "dealing" with government. And, of course, government, in a sense, is forced to respond by upgrading the quality and increasing the size of the bureaucracy to match bigger and more sophisticated submissions and interventions. There is a distinct element of self-levitation involved in the regulatory process that must, necessarily, be adversarial. Fewer, more clearly defined, and more steadfastly held regulatory objectives would go some distance in reducing the extremely high direct costs of regulation. These costs are, when all is said and done, borne by the consumer-taxpayer in one way or another.

13. By making the CBC the designated instrument for the realization of the Canadian content objective in broadcasting, plus the extension of the tax concessions discussed earlier, the CRTC's role in broadcasting would be greatly simplified. The adoption of a "lease by auction" approach to the allocation of broadcasting licenses would further simplify the process and, incidentally, remove the odour of patronage that now pervades the existing system of license allocation – rightly or wrongly. Restricting the CRTC's responsibilities in the field of telecommunications to inter-provincial matters would be a further step in narrowing its role to manageable proportions.

14. Shifting the burden of regulation of intraprovincial telecommunications (primarily telephone and cable TV) to the provinces would probably increase the overall direct costs of the regulation of telecommunications in Canada, so that the savings in the regulation of broadcasting would be offset, in whole or in part, by increased costs in the telecommunications field. But at least the responsibilities would rest

where they should rest and the regulatory costs would be borne where they should be borne – by the residents of the particular province to which the regulations apply.

15. The CRTC seems to have done a significantly superior job to the CTC in the limited time that it has had responsibility for the regulation of telecommunications. What has been said above should not be construed as a criticism of the brief role it has played thus far in this field. The "provincialization" proposed arises because of the author's firm commitment to that objective for reasons that go far beyond the relatively narrow questions involved in communications *per se.* If this nation is to survive it must reverse the previous stance that said, in effect, that if it *can* be done in Ottawa it *must* be done in Ottawa. Now we should adopt the maxim, it it *can* be done in the provinces without untoward interprovincial "beggar my neighbour" consequences it *must* be done in the provinces.

If the federal government were to specify its continuing *national* objectives with respect to communications, and the CRTC were to pursue those objectives in a steadfast manner without ministerial intervention except where the CRTC deviated from the stated policy of the government, we might be on the right road at last.

Ontario's Agencies, Boards, Commissions, Advisory Bodies and Other Public Institutions: An Inventory (1977)*

prepared by
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with
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1. Introduction

A necessary element in the assessment of regulation in Ontario is a comprehensive review of existing regulatory institutions. The breadth of the concept of regulation and the variety of modes in which regulation may appear make such a review an extensive exercise. The inventory presented below is intended as a contribution toward the accomplishment of this review.

This inventory of Ontario's regulatory institutions – agencies, boards, commissions, and advisory, research and other public bodies – is, to our knowledge, more comprehensive than any other which has been published to date. An expansive view of regulation has been taken in deciding whether to include or exclude institutions, particularly in the final category, "Other Public Institutions".[1]

There are, however, some substantial limitations on the scope of the inventory. First, it concentrates on delegated authority and thus, as a general

*This inventory was prepared by the Law and Economics Programme, University of Toronto for the Ontario Economic Council as a background paper for the Council's study of regulation. The information was collected during the summer of 1977 by Barry Bresner and Timothy Leigh-Bell, law students at the University of Western Ontario and the University of Toronto respectively. The project was supervised and prepared for publication by Professors Prichard, Trebilcock and Waverman of the University of Toronto.

[1] The working definition used in this study is at least as broad as the one given in *Agencies, Boards and Commissions in the Governement of Ontario* (Management Board Secretariat, 1974) at p. i: "An organizational unit of government which is a component part of a ministerial portfolio receiving a particular form of delegated authority and representing one alternative to the departmental structure as a means of assisting in the formation of government policy, or delivering government programs, or executing the government's regulatory responsibilities".

rule, excludes the departmental structures of the provincial government. Second, the inventory is generally limited to provincial bodies and does not include municipal and regional institutions despite their obvious importance in the scope of regulation in Ontario. Third, *ad hoc* bodies and tribunals including public inquiries and royal commissions are excluded in all but a small number of cases.

The institutions are divided into eight categories:

A. Regulatory
B. Licensing and Appeal
C. Professional
D. Compensation
E. Arbitral
F. Advisory
G. Research
H. Other Public Institutions

Within each category, the institutions are listed alphabetically by Ministry. The categories and the placement of institutions within them necessarily have an element of arbitrariness to them. It was decided that some functional categorization of the institutions would assist the organization and assessment of the material despite the recognition that any such categorization would require judgments with which others could reasonably disagree. The difficulty of categorization was enhanced by the fact that many institutions have multiple functions; in such cases, the primary or dominant function was used as the basis for the choice of category.

For each entry, the inventory provides the name of the institution and the enabling statute or order-in-council. In addition, the asterisks in the three columns to the right of the enabling statutes indicate what further information is available with respect to those institutions.

Column I, "Survey", refers to responses by the institutions to a survey mailed to them in the summer of 1977 by the authors under the auspices of the Ontario Economic Council. An asterisk indicates that a response was received.[2] The survey sought information about each institution with respect to its functions, accountability, reporting, funding, expenditures, rules and

[2] A response is indicated regardless of the completeness of the response. Although many responses were comprehensive, a number of institutions declined to answer many or most of the questions in the surveys. Certain other responses indicated an inability to provide the requested information. For example, the total response of one institution was: "Only met once (1974) since original appointment in 1973 – very inactive board". Two other institutions responded that they had not been required to function since their establishment. The chairman of another institution declined to complete the survey stating: "As a matter of fact, since I have been chairman there has been no occasion for the [Committee] to meet ... Obviously, then, during my tenure the Committee has spent no money, retained no lawyers or consultants or made any reports to any person or group". Finally, one chairman responded with a tone of frustation: "We were never used so we have never received any money or pay for the job... I have requested a copy of the Act but at this date have not received it".

publication of decisions. Copies of the responses are on file at the Ontario Economic Council.

Column II, "Description", refers to the numbered paragraphs which follow the inventory. These paragraphs contain a brief summary of the structure and function of each institution. The number of the institution in the inventory corresponds with the number of the expository paragraph.

Column III, "Case Studies", refers to detailed case studies of fifteen institutions. These case studies present an extensive review of the structure, function and statutory authority of the selected institutions. The fifteen institutions were chosen as a useful sample of the total inventory. Copies of these case studies in mimeograph form are available from the Ontario Economic Council.

In an undertaking of this kind some omissions and errors are inevitable. The authors would appreciate notification of such mistakes in order that the inventory may be improved.

REGULATORY BODIES	*Acts*	I *Survey*	II *Description*	III *Case Study*
Ministry of Agriculture				
1 Milk Commission of Ontario	*Milk Act*	*	*	*
2 Ontario Milk Marketing Board	*Milk Act*	*	*	*
3 Ontario Cream Producers' Marketing Board	*Milk Act*		*	
4 Farm Products Marketing Board	*Farm Products Marketing Act*	*	*	
4a Apple Marketing Commission	*Farm Products Marketing Act*		*	
4b Asparagus Growers' Marketing Board	*Farm Products Marketing Act*		*	
4c Bean Producers' Marketing Board	*Farm Products Marketing Act*		*	
4d Berry Growers' Marketing Board	*Farm Products Marketing Act*		*	
4e Burley Tobacco Growers' Marketing Board	*Farm Products Marketing Act*		*	
4f Chicken Producers' Marketing Board	*Farm Products Marketing Act*		*	
4g Egg Producers' Marketing Board	*Farm Products Marketing Act*		*	
4h Flue Cured Tobacco Growers' Marketing Board	*Farm Products Marketing Act*		*	
4i Fresh Fruit Marketing Board	*Farm Products Marketing Act*		*	
4j Fresh Grape Growers' Marketing Board	*Farm Products Marketing Act*		*	
4k Grape Growers' Marketing Board	*Farm Products Marketing Act*		*	
4l Greenhouse Vegetable Producers' Marketing Board	*Farm Products Marketing Act*		*	

REGULATORY BODIES *(Cont'd)*	*Acts*	I *Survey*	II *Description*	III *Case Study*
4m Pork Producers' Marketing Board	*Farm Products Marketing Act*		*	
4n Potato Growers' Marketing Board	*Farm Products Marketing Act*		*	
4o Processing Tomato Seedlings Plant Growers' Marketing Board	*Farm Products Marketing Act*		*	
4p Seed Corn Growers' Marketing Board	*Farm Products Marketing Act*		*	
4q Soya Bean Growers' Marketing Board	*Farm Products Marketing Act*		*	
4r Tender Fruit Growers' Marketing Board	*Farm Products Marketing Act*		*	
4s Turkey Producers' Marketing Board	*Farm Products Marketing Act*		*	
4t Vegetable Growers' Marketing Board	*Farm Products Marketing Act*		*	
4u Wheat Producers' Marketing Board	*Farm Products Marketing Act*		*	
5 Ontario Drainage Tribunal	*Drainage Act, 1975*		*	
Ministry of Attorney General				
6 Ontario Municipal Board	*Ontario Municipal Board Act* *Municipal Act, Dept. of Municipal Affairs Act* *Planning Act, Assessment Act*	*	*	
7 Provincial Courts Rules Committee	*Provincial Courts Act*	*	*	
8 Rules Committee	*Judicature Act*	*	*	
Ministry of Community and Social Services				
9 District Child Welfare Budget Boards	*Child Welfare Act*		*	
Ministry of Consumer and Commercial Relations				
10 Board of Censors	*Theatres Act*	*	*	
11 Building Code Commission	*Building Code Act, 1974*	*	*	
12 Building Materials Evaluation Commission	*Building Code Act, 1974*	*	*	
13 Liquor Control Board of Ontario	*Liquor Control Act, 1975*	*	*	*
14 Ontario Racing Commission	*Racing Commission Act*	*	*	*
15 Ontario Securities Commission	*Securities Act*	*	*	
16 Pension Commission	*Pension Benefits Act*	*	*	
Ministry of Correctional Services				
17 Board of Parole	*Ministry of Correctional Services Act*	*	*	

REGULATORY BODIES *(Cont'd)*	*Acts*	I *Survey*	II *Description*	III *Case Study*
Ministry of Education				
18 Teachers' Superannuation Commission	*Teachers' Superannuation Act*	*	*	
Ministry of Energy				
19 Ontario Energy Board	*Ontario Energy Board Act* *Ontario Energy Board Amendment Act, 1973*	*	*	*
Ministry of the Environment				
20 Environmental Assessment Board	*Environmental Assessment Act, 1975*	*	*	*
Ministry of Health				
21 Health Unit Boards	*Public Health Act*		*	
22 Regional Boards of Health	*Ministry of Health Act*		*	
23 Review Boards for Psychiatric Facilities	*Mental Health Act*		*	
Ministry of Labour				
24 Ontario Labour Relations Board	*Labour Relations Act*	*	*	
25 Ontario Human Rights Commission	*Ontario Human Rights Code*	*	*	
Management Board of Cabinet				
26 Civil Service Commission	*Public Service Act*	*	*	
27 Ontario Public Service Labour Relations Tribunal	*Crown Employees Collective Bargaining Act, 1974*	*	*	
Ministry of Natural Resources				
28 Mining Commissioner	*Mining Act*	*	*	
Office of the Assembly				
29 Board of Internal Economy	*Legislative Assembly Act and Legislative Assembly Amendment Act, 1974*	*	*	
30 Commission on Election Contributions and Expenses	*Election Finances Reform Act, 1975*	*	*	
Provincial Secretariat for Resources Development				
31 Niagara Escarpment Commission	*Niagara Escarpment Planning and Development Act, 1973*	*	*	
Ministry of the Solicitor General				
32 Ontario Police Commission	*Police Act*	*	*	
Ministry of Transportation and Communication				
33 Ontario Highway Transport Board	*Ontario Highway Transport Board Act*	*	*	*
34 Ontario Telephone Service Commission	*Telephone Act*	*	*	*

REGULATORY BODIES *(Cont'd)*	*Acts*	I *Survey*	II *Description*	III *Case Study*
Ministry of T.E.I.G.A.				
35 Boards of Trustees for Improvement Districts	*Municipal Act*		*	
36 Moosonee Development Area Board	*Moosonee Development Area Board Act*	*	*	
LICENSING AND APPEAL BODIES				
Ministry of Agriculture and Food				
37 Agricultural Tile Drainage Licence Review Board	*Agricultural Tile Drainage Act, 1972*	*	*	
38 Artificial Insemination of Live Stock Licence Review Board	*Artificial Insemination of Live Stock Act, 1973*		*	
39 Licence and Registration Review Board	*Animals For Research Act*	*	*	
40 Dead Animal Disposal Licence Review Board	*Civil Rights Statute Law Amendment Act, 1971*	*	*	*
41 Live Stock and Live Stock Products Licence Review Board	*Civil Rights Statute Law Amendment Act, 1971*	*	*	*
42 Live Stock Community Sales Licence Review Board	*Civil Rights Statute Law Amendment Act, 1971*	*	*	*
43 Meat Inspection Licence Review Board	*Civil Rights Statute Law Amendment Act, 1971*	*	*	*
44 Plant Diseases Licence Review Board	*Civil Rights Statute Law Amendment Act, 1971*	*	*	
45 Pregnant Mare Urine Licence Review Board	*Pregnant Mare Urine Farms Act*	*	*	
46 Produce Licence Review Board	*Farm Products Grades & Sales Amend, Act. 1974*	*	*	
47 Provincial Auctioneers' Licence Review Board	*Civil Rights Statute Law Amend. Act. 1971*		*	
48 Riding Horse Establishment Licence Review Board	*Riding Horse Establishment Act, 1972*	*	*	
Ministry of the Attorney-General				
49 Assessment Review Court	*Assessment Review Court Act, 1972*		*	
Ministry of Colleges & Universities				
50 Private Vocational School Review Board	*Private Vocational Schools Act, 1974*		*	
Ministry of Community and Social Services				
51 Day Nursery Review Board	*Day Nurseries Act*		*	
52 Social Assistance Review Board	*Family Benefits Act, General Welfare Assistance Act, Vocational Services Rehabilitation Act, Ministry of Community and Social Services Act, 1974*	*	*	

LICENSING AND APPEAL BODIES *(Cont'd)*	*Acts*	I *Survey*	II *Description*	III *Case Study*
Ministry of Consumer and Commercial Relations				
53 Commercial Registration Appeal Tribunal	*The Ministry of Consumer & Commercial Relations Act*	*	*	
54 Liquor Licence Appeal Tribunal	*Liquor Licence Act, 1975*	*	*	
55 Liquor Licence Board	*Liquor Licence Act, 1975*	*	*	*
Ministry of Culture and Recreation				
56 Conservation Review Board	*Ontario Heritage Act, 1974*	*	*	
Ministry of the Environment				
57 Environmental Appeal Board	*Environmental Protection Act, 1971*	*	*	
58 Pesticides Appeal Board	*Pesticides Act, 1973*	*	*	
Ministry of Health				
59 Denture Therapists Appeal Board	*The Denture Therapists Act, 1974*	*	*	
60 Health Disciplines Board	*Health Disciplines Act*		*	
61 Health Facilities Appeal Board	*Ambulance Amendment Act, 1972*	*	*	
62 Health Services Appeal Board	*The Health Insurance Act, 1972*	*	*	
63 Hospital Appeal Board	*The Public Hospitals Amendment Act, 1972*	*	*	
64 Laboratory Review Board	*The Public Health Amendment Act, 1972*	*	*	
65 Licensing Board of Review	*Childrens' Mental Health Centres Act*		*	
66 Medical Eligibility Committee	*The Health Insurance Act, 1972*	*	*	
67 Nursing Homes Review Board	*The Nursing Homes Act, 1972*		*	
Ministry of Labour				
68 Ontario Labour-Management Arbitration Commission	*Ontario Labour-Management Commission Act*	*	*	
69 Ontario Police Arbitration Commission	*Police Amendment Act, 1972*		*	
Ministry of Natural Resources				
70 Game and Fish Hearing Board	*Game and Fish Amendment Act, 1973*	*	*	
Ministry of the Solicitor General				
71 Animal Care Review Board	*Ontario Society for the Prevention of Cruelty to Animals Amendment Act, 1968-69*		*	

PROFESSIONAL BODIES	Acts	I Survey	II Description	III Case Study
Ministry of the Attorney General				
72 Council of Association of Professional Engineers	*Professional Engineers Act*	*		
73 The Law Society of Upper Canada	*The Law Society Act, The Law Society Amendment Act, 1973*	*		
74 Judicial Council for Provincial Judges	*Provincial Courts Act*	*		
75 Public Accountants Council	*Public Accountancy Act*	*		*
76 Registration Board of Ontario Association of Architects	*Architects Act*	*		
Ministry of Consumer & Commercial Relations				
77 Operating Engineers Board of Examiners	*Operating Engineers Act*	*		
Ministry of Health				
78 Board of Directors of Chiropractic	*Drugless Practitioners Act*	*		
79 Board of Directors of Drugless Therapy	*Drugless Practitioners Act*	*		
80 Board of Directors of Masseurs	*Drugless Practitioners Act*			
81 Board of Directors of Osteopathy	*Drugless Practitioners Act*			
82 Board of Directors of Physiotherapy	*Drugless Practitioners Act*	*		
83 Board of Opthalmic Dispensers	*Opthalmic Dispensary Act*	*		
84 Board of Radiological Technicians	*Radiological Technicians Act*	*		
85 Board of Regents of Chiropody	*Chiropody Act*			
86 Council of the College of Nurses of Ontario	*Health Disciplines Act, 1974*	*		
87 Council of the College of Optometrists of Ontario	*Health Disciplines Act, 1974*			
88 Council of the College of Physicians and Surgeons of Ontario	*Health Disciplines Act, 1974*			
89 Council of the Ontario College of Pharmacists	*Health Disciplines Act, 1974*	*		*
90 Council of the Royal College of Dental Surgeons	*Health Disciplines Act, 1974*	*		
91 Dental Personnel Selection Committee	*Ministry of Health Act, 1972*	*		
92 Governing Board of Dental Technicians	*Dental Technicians Act*	*		
93 Governing Board of Denture Therapists	*Denture Therapists Act, 1974*	*		

PROFESSIONAL BODIES *(Cont'd)*	*Acts*	I *Survey*	II *Description*	III *Case Study*
Ministry of Health (Cont'd)				
94 Medical Personnel Selection Committee	*Health Insurance Act, 1972, O.C. 464/70*	*		
95 Ontario Board of Administrators of Embalmers and Funeral Directors	*Embalmers and Funeral Directors Act*	*		
96 Ontario Board of Examiners in Psychology	*Psychologists Registration Act*	*		
97 Professional Credentials Committee for Public Health Nursing	*Ministry of Health Act, 1972*			
Ministry of Natural Resources				
98 Council of the Association of Ontario Land Surveyors	*Surveyors Act*	*		
99 Land Surveyors Board of Examiners	*Surveyors Act*			
Ministry of the Solicitor General				
100 The Coroners' Council	*Coroners Act, 1972*	*		
101 Boards of Commissioners of Police: – Durham; Haldemand-Norfolk; Halton; Hamilton-Wentworth; Metropolitan Toronto; Niagara Regional; Peel Regional; Sudbury Regional; Waterloo Regional; York Regional	*Police Act*			
COMPENSATION BODIES				
Ministry of Agriculture and Food				
102 Wolf Damage Assessment Board	*Dog Licensing and Live Stock and Poultry Protection Act*		*	
Ministry of the Attorney-General				
103 Board of Negotiation	*Expropriations Act*	*	*	
104 Criminal Injuries Compensation Board	*Compensation For Victims of Crime Act*	*	*	
105 Land Compensation Board	*Expropriations Act*	*	*	*
Ministry of Consumer and Commercial Relations				
106 Travel Industry Trust Fund and Plan Board of Trustees	*Travel Industry Act, 1974*	*	*	
Ministry of Energy				
107 Board of Valuation	*Power Corporation Act*	*	*	
Ministry of Environment				
108 Board of Negotiation	*Environmental Protection Act, 1971*	*	*	

COMPENSATION BODIES *(Cont'd)*	Acts	I Survey	II Description	III Case Study
Ministry of Health				
109 Chiropody Review Committee			*	
Chiropractic Review Committee			*	
Dentistry Review Committee	*The Health Insurance Act, 1972*		*	
Medical Review Committee			*	
Optometry Review Committee			*	
Osteopathy Review Committee			*	
Ministry of Labour				
110 Workmen's Compensation Board	*Workmen's Compensation Act, 1973*	*	*	
ARBITRAL BODIES				
Ministry of Agriculture and Food				
111 Farm Machinery Board	*Ministry of Agriculture & Food Act*, O.C.1920/72	*	*	
112 Negotiating Committee for Cream and Board of Arbitration	*Milk Act*			*
113 Ontario Crop Insurance Arbitration Board	*Crop Insurance Act*			*
114 Produce Arbitration Board	*Farm Products Grades & Sales Amendment Act, 1974*			*
Ministry of Colleges and Universities				
115 College Relations Commission	*Colleges Collective Bargaining Act, 1975*	*	*	
Ministry of Education				
116 Education Relations Commission	*School Boards & Teachers Collective Negotiations Act, 1975*	*	*	
117 Provincial Schools Authority	*Provincial Schools Negotiations Act, 1975*	*	*	
Ministry of Labour				
118 Board of Hospital Arbitration	*Hospital Labour Disputes Arbitration Act*			*
119 Boards of Arbitration (ad hoc)	*Labour Relations Act*			*
120 Employment Standards – Panel of Referees	*Employment Standards Act*	*	*	
121 Ontario Human Rights Code – Boards of Inquiry	*Ontario Human Rights Code*			*
Management Board of Cabinet				
122 Boards of Arbitration	*Crown Employees Collective Bargaining Act, 1972*			*
123 Crown Employees Grievance Settlement Board	*Crown Employees Collective Bargaining Amendment Act, 1974*			*

ARBITRAL BODIES *(Cont'd)*	*Acts*	I *Survey*	II *Description*	III *Case Study*
124 Ontario Provincial Police Arbitration Committee	*Public Service Amendment Act, 1972*		*	
125 Ontario Provincial Police Negotiating Committee	*Public Service Amendment Act, 1972*		*	
126 Ontario Public Service Labour Relations Tribunal	*Crown Employees Collective Bargaining Amendment Act, 1974*		*	
127 Public Service Grievance Board	*Public Service Act*	*	*	
128 Public Service Classification Rating Committee	*Public Service Act*	*	*	
Ministry of the Solicitor General				
129 Bargaining Committees	*The Police Act*	*	*	
130 Boards of Arbitration	*The Police Act*	*	*	
ADVISORY BODIES				
Ministry of Agriculture and Food				
131 Advisory Committee for Cheese	*Milk Act*			
132 Advisory Committee for Milk	*Milk Act*			
133 Advisory Committee to the Fund for Milk and Cream Producers	*Milk Act*			
134 Advisory Committee of Processors	*Milk Act*			
135 Advisory Committee on Transportation of Milk	*Milk Act*			
136 Artificial Insemination of Livestock Advisory Committee	*Artificial Insemination of Livestock Act, 1973*			
137 Centralia College of Agriculture – Advisory Committee on Diploma Education	*Ministry of Agriculture and Food Act*			
138 Chicken Industry Advisory Committee	*Farm Products Marketing Act*			
139 Chicken Processors' Advisory Committee	*Farm Products Marketing Act*			
140 Dairy Herd Improvement Advisory Committee	*Ministry of Agriculture and Food Act*			
141 Kemptville College of Agricultural Technology – Advisory Committee on Diploma Education	*Ministry of Agriculture and Food Act*			
142 Livestock Medicines Advisory Committee	*Livestock Medicines Act, 1973*			

ADVISORY BODIES *(Cont'd)*	Acts	I Survey	II Description	III Case Study
Ministry of the Solicitor General (Cont'd)				
143 Ridgetown College of Agricultural Technology – Advisory Committee on Diploma Education	*Ministry of Agriculture and Food Act*			
144 Ontario Agricultural Museum Advisory Board	*Ontario Agricultural Museum Act, 1975*			
145 Ontario Agricultural Museum Artifacts Valuation Committee	*Ontario Agricultural Museum Act, 1975*			
146 Ontario Food Council	*Ontario Producers, Processors, Distributors and Consumers Food Council Act*	*		
147 Potato Industry Advisory Committee				
Ministry of the Attorney General				
148 Advisory Committee on Legal Aid	*Legal Aid Act*			
149 Advisory Committee of the Public Trustee on Investments	*Public Trustee Act*			
150 Finance Committee	*Judicature Act,*			
151 Ontario Law Reform Commission	*Ontario Law Reform Commission Act*	*		
152 Statutory Powers and Procedures Rules Committee	*Statutory Powers and Procedure Act*	*		
Ministry of Colleges and Universities				
153 Apprenticeship and Tradesmen's Provincial Advisory Committee	*Apprenticeship and Tradesmen's Qualification Act*			
154 Ontario Industrial Training Council	*Ministry of Colleges and Universities Act, 1971*			
155 Ontario Council on University Affairs	*Ministry of Colleges and Universities Act, 1971*			
156 Selection Board	*Ministry of Colleges and Universities Act, 1971*			
Ministry of Community and Social Services				
157 Child Welfare Review Committee	*Child Welfare Act*			
158 Medical Advisory Board	*Family Benefits Act*			
159 Medical Advisory Board – Vocational Rehabilitation Services	*Vocational Rehabilitation Services Act*			
160 Minister's Advisory Committee on Geriatric Studies	*Ministry of Community and Social Services Act*			
161 Minister's Advisory Committee on Vocational Rehabilitation Services	*Vocational Rehabilitation Services Act*			

ADVISORY BODIES *(Cont'd)*	*Acts*	I *Survey*	II *Description*	III *Case Study*
Ministry of Consumer and Commercial Relations				
162 Cemeteries Advisory Board	*Cemeteries Act*			
163 Consumer and Commercial Relations Advisory Committee	*Ministry of Consumer and Commercial Affairs Act*			
164 Financial Disclosure Advisory Board	*Securities Act*			
165 Ontario Liquor Advisory Committee	O.C.2183/75			
166 Ontario Liquor Advisory Council	O.C.2183/75			
167 Operating Engineers Board of Review	*Operating Engineers Act*	*		
168 Province of Ontario Horse Racing and Breeding Advisory Board	*Racing Commission Act*			
Ministry of Correctional Services				
169 Minister's Advisory Council for Treatment of the Offender	*Ministry of Correctional Services Act*			
170 Training Schools Advisory Board	*Training Schools Act*			
Ministry of Culture and Recreation				
171 Conseil Consultatif des Affairs Franco-Ontariennes	*Ministry of Culture and Recreation Act, 1974*			
172 Huronia Historical Development Council	*Ministry of Industry and Tourism Act*			
173 John Graves Simcoe Memorial Advisory Board	*John Graves Simcoe Memorial Foundation Act, 1965*			
174 John Graves Simcoe Memorial Foundation Board of Trustees	*John Graves Simcoe Memorial Foundation Act, 1965*			
175 Local Architectural Conservation Advisory Committee	*Ontario Heritage Act, 1974*			
176 Old Fort William Advisory Committee	*Ministry of Culture and Recreation Act, 1974*			
177 Ontario Provincial Library Council	*Public Libraries Act*			
178 Ontario Hockey Council	*Ministry of Culture and Recreation Act, 1974*			
Ministry of Education				
179 Advisory Council on Ontario Teachers' Education College	*Education Act, 1974*			
180 Council on French Language Schools	*Education Act, 1974*			
181 Language of Instruction Commission of Ontario	*Education Act, 1974*	*		

ADVISORY BODIES *(Cont'd.)*	*Acts*	I *Survey*	II *Description*	III *Case Study*
Ministry of Energy				
182 Ontario Hydro Electric Advisory Council	*Power Corporation Act*			
Ministry of the Environment				
183 Farm Pollution Advisory Committee	*Environmental Protection Act, 1971*			
184 Pesticides Advisory Committee	*Pesticides Act, 1973*			
185 Waste Management Advisory Board	O.C.306/75			
186 The Environmental Council	*The Environmental Protection Act, 1971*			
Ministry of Government Services				
187 Public Service Superannuation Board	*Public Service Superannuation Act*	*		
Ministry of Health				
188 Advisory Committee on Genetic Services	*Ministry of Health Act, 1972*			
189 Advisory Committee on Immunization Procedures	*Ministry of Health Act, 1972*			
190 Advisory Committee on Inborn Errors of Metabolism in Children	*Ministry of Health Act, 1972*			
191 Advisory Committee on Maternal Deaths	*Ministry of Health Act, 1972*			
192 Advisory Committee on Reproductive Medical Care	*Ministry of Health Act, 1972*			
193 Advisory Medical Board – Mental Health	*Ontario Mental Health Foundation Act*			
194 Advisory Review Board for Psychiatric Facilities	*Mental Health Act*			
195 Demonstration Model Grants Review Committee	*Ministry of Health Act, 1972*			
196 District Health Councils	*Ministry of Health Act, 1972*			
197 Drug Quality and Therapeutics Committee	*Ministry of Health Act, 1972*			
198 Fellowship Review Committee	*Ministry of Health Act, 1972*			
199 Joint Committee on Physicians' Compensation for Professional Services	*Ministry of Health Act, 1972*			
200 Ontario Cancer Treatment and Research Foundation Advisory Medical Board	*Cancer Act*			
201 Ontario Council of Health	*Ministry of Health Act, 1972*			
202 Professional Services Management Committee	*Ministry of Health Act, 1972*	*		

ADVISORY BODIES *(Cont'd)*	*Acts*	I *Survey*	II *Description*	III *Case Study*
203 Research Grants Review Committee	*Ministry of Health Act, 1972*			
204 Alcoholism and Drug Addiction Research Foundation Professional Advisory Board	*Alcoholism and Drug Addiction Research Foundation Act*			
Ministry of Labour				
205 Advisory Committee for the Barbering Industry	*Industrial Standards Act*			
206 Advisory Council on Occupational and Environmental Health	*Ministry of Health Act, 1972*			
207 Agricultural Industry Advisory Committee	*Employment Standards Act*			
208 Industrial Standards Advisory Committee	*Industrial Standards Act*			
209 Joint Consultative Committee	*Workmen's Compensation Amendment Act, 1973*			
Ministry of Natural Resources				
210 Advisory Committee to Minister of Natural Resources	*Ministry of Natural Resources Act, 1972* , O.C.833/75			
211 Canada, Ontario, Rideau, Trent, Severn Advisory Committee (CORTS)	*Ministry of Natural Resources Act, 1972*, O.C.471/75			
212 Natural Resources Advisory Committees	*Ministry of Natural Resources Act, 1972*, O.C.797/74			
– North Central	,,	,,	,,	,,
– North Eastern	,,	,,	,,	,,
– Northern	,,	,,	,,	,,
– North Western	,,	,,	,,	,,
213 Ontario Geographic Names Board	*Ontario Geographic Names Board Act*			
214 Ontario Trails Council	O.C.2405/75			
215 Public Agricultural Lands Committee	*Public Lands Act*, s.48			
216 Crown Timber Boards of Examiners	*Crown Timber Act*			
Office of the Premier				
217 Province of Ontario Medal for Firefighters' Bravery Advisory Council	O.C.2482/76			
218 Province of Ontario Medal for Good Citizenship Advisory Council	O.C.1569/73			
219 Province of Ontario Medal for Police Bravery Advisory Council	O.C.2963/75			

ADVISORY BODIES *(Cont'd)*	*Acts*	**I** *Survey*	**II** *Description*	**III** *Case Study*
Provincial Secretariat for Social Development				
220 Ontario Advisory Council on Multiculturalism	O.C.2424/73			
221 Ontario Advisory Council on the Physically Handicapped	O.C.355/75			
222 Ontario Advisory Council on Senior Citizens	O.C.1128/74			
223 Ontario Status of Women Council	O.C.2399/73			
Ministry of Solicitor General				
224 Advisory Council in Forensic Sciences	O.C.3571/66 and 2415/67			
Ministry of Treasury, Economics and Intergovernmental Affairs				
225 Parkway Belt West: Interested Groups and Residents' Advisory Committee	*Ontario Planning and Development Act, 1973*			
226 Parkway Belt West: Municipal Advisory Committee	*Ontario Planning and Development Act, 1973*			

RESEARCH BODIES				
Ministry of Agriculture				
227 Agricultural Research Institute of Ontario	*Agricultural Institute of Ontario Act*			
Ministry of Colleges and Universities				
228 Ontario Historical Studies Series	*Ministry of Colleges & Universities Act, 1971*			
Ministry of Education				
229 Ontario Institute for Studies in Education	*Ontario Institute for Studies in Education Act*			
Ministry of Health				
230 Alcoholism & Drug Addiction Research Foundation	*Alcoholism & Drug Addiction Research Foundation Act*			
231 Commission for the Investigation of Cancer Remedies	*Cancer Remedies Act*			
232 Ontario Cancer Institute	*Cancer Act*			
233 Ontario Cancer Treatment & Research Foundation	*Cancer Act*			
Ministry of Industry & Tourism				
234 Ontario Research Foundation	*Research Foundation Act, 1944*			
Ministry of T.E.I.G.A				
235 Ontario Economic Council	*Ontario Economic Council Act*			

OTHER PUBLIC INSTITUTIONS	Acts	I Survey	II Description	III Case Study
Ministry of Agriculture and Food				
236 Agricultural, Rehabilitation and Development Directorate	*Agricultural Rehabilitation and Development Act*	*	*	
237 Cooperative Loans Board of Ontario	*Cooperative Loans Act*	*	*	
238 Crop Insurance Commission	*Crop Insurance Act*	*	*	
239 Farm Products Payment Board (Milk Commission)	*Farm Products Payment Act*		*	
240 Farm Income Stabilization Commission	*The Farm Income Stabilization Act, 1976*	*	*	
241 Ontario Food Terminal Board	*Ontario Food Terminal Act*	*	*	
242 Ontario Junior Farmer Establishment Loan Corporation	*Junior Farmer Establishment Act*	*	*	
243 Ontario Stock Yards Board	*Stock Yards Act*	*	*	
Ministry of the Attorney General				
244 Law Foundation of Ontario	*Law Society Amendment Act, 1973*	*	*	
Ministry of Colleges and Universities				
245 Boards of Governors of the Community Colleges	*Ministry of Colleges & Universities Act, 1971*		*	
246 Boards of Governors of Universities	Each created under Act named for relevant university		*	
247 Council of Ontario College of Art	*Ontario College of Art Act, 1968-69*	*	*	
248 Ontario Council of Regents for Colleges of Applied Arts & Technology	*Ministry of Colleges & Universities Act, 1971*		*	
249 Sunnybrook Hospital Board of Trustees	*Sunnybrook Hospital Act, 1966*		*	
Ministry of Community & Social Services				
250 Boards of Management for Homes for the Aged and Rest Homes	*Homes for the Aged and Rest Homes Act and Amendment Act, 1973*		*	
251 District Welfare Administration Boards	*District Welfare Administration Boards Act, 1972*		*	
252 Soldiers' Aid Commission	*Soldiers' Aid Commission Act*		*	
Ministry of Consumer & Commercial Relations				
253 Ontario Share & Deposit Insurance Corporation - Board of Directors	*Credit Union and Caisse Populaires Act, 1976*		*	

OTHER PUBLIC INSTITUTIONS *(Cont'd)*	*Acts*	I *Survey*	II *Description*	III *Case Study*
254 Toronto Stock Exchange - Board of Directors	*Toronto Stock Exchange Act*		*	
Ministry of Culture & Recreation				
255 Art Gallery of Ontario	*Art Gallery of Ontario Act*	*	*	
256 McMichael Canadian Collection	*McMichael Canadian Collection Act, 1972*		*	
257 Ontario Educational Communications Authority	*Ontario Educational Communications Authority Act*	*	*	
258 Ontario Heritage Foundation	*Ontario Heritage Foundation Act, 1974*		*	
259 Ontario Lottery Corporation	*Ontario Lottery Corporation Act, 1974*	*	*	
260 Ontario Science Centre	*Centennial Centre of Science & Technology Act*		*	
261 Province of Ontario Council for the Arts	*Arts Council Act*		*	
262 Royal Ontario Museum Board of Trustees	*Royal Ontario Museum Act*		*	
Ministry of Energy				
263 Ontario Energy Corporation	*Ontario Energy Corporation Act, 1974*	*	*	*
264 Ontario Hydro	*Power Commission Act,*		*	
Ministry of Health				
265 Clarke Institute of Psychiatry	*Ontario Mental Health Foundation Amendment Act, 1964, 1970*		*	
266 Community Psychiatric Hospital Boards of Governors	*Community Psychiatric Hospitals Act*		*	
267 Public Hospitals Boards of Directors	*Public Hospitals Act*		*	
268 Ontario Mental Health Foundation	*Ontario Mental Health Foundation Act*	*	*	
Ministry of Housing				
269 Local Housing Authorities	*Housing Development Act*		*	
270 North Pickering Development Corporation	*North Pickering Development Corporation Act, 1974*	*	*	
271 Ontario Housing Corporation	*Ontario Housing Corporation Act*	*	*	
272 Ontario Mortgage Corporation	Letters Patent	*	*	
Ministry of Natural Resources				
273 Algonquin Forestry Authority	*Algonquin Forestry Authority Act, 1974*	*	*	

OTHER PUBLIC INSTITUTIONS *(Cont'd)*	*Acts*	I *Survey*	II *Description*	III *Case Study*
Ministry of Natural Resources (Cont'd.)				
274 Conservation Authorities	*Conservation Authorities Act*		*	
275 Freshwater Fish Marketing Corporation	*Freshwater Fish Marketing Act (Ontario)*	*	*	
276 Lake of the Woods Control Board	*Lake of the Woods Control Board Act, 1922*		*	
277 Niagara Parks Commission	*Niagara Parks Act*	*	*	
278 St. Clair Parkway Commission	*St. Clair Parkway Commission Act*	*	*	
279 St. Lawrence Parks Commission	*St. Lawrence Parks Commission Act*	*	*	
Office of the Premier				
280 Niagara Falls Bridge Commission	*Rainbow Bridge Act, 1941*	*	*	
Ministry of Industry & Tourism				
281 Eastern Ontario Development Corporation	*The Development Corporations Act, 1973*	*	*	
282 Northern Ontario Development Corporation	*The Development Corporations Act, 1973*	*	*	
283 Ontario Development Corporation	*The Ontario Development Corporation Act*	*	*	
284 Ontario Place Corporation	*The Ontario Place Corporation Act, 1972*		*	
Ministry of Transportation and Communication				
285 Ontario Northland Transportation Commission	*The Ontario Northland Transportation Commission Act*	*	*	*
286 Ontario Transportation Development Corporation	*The Ontario Transportation Development Act, 1973*		*	
287 Toronto Area Transit Operating Authority	*Toronto Area Transit Operating Authority Act, 1974*	*	*	
Ministry of Treasury, Economics and Intergovernmental Affairs				
288 Ontario Education Capital Aid Corporation	*Ontario Education Capital Aid Corporation Act*	*	*	
289 Ontario Land Corporation	*Ontario Land Corporation Act, 1974*	*	*	
290 Ontario Municipal Employees Retirement Board	*Ontario Municipal Employees Retirement Systems Act*	*	*	
291 Ontario Municipal Improvement Corporation	*Ontario Municipal Improvement Corporation Act*	*	*	
292 Ontario Universities Capital Aid Corporation	*Ontario Universities Capital Aid Corporation Act*	*		

REGULATORY BODIES

1. *The Milk Commission of Ontario*

The Milk Commission was established under the *The Milk Act,* S.O. 1954, c.52 and was continued by R.S.O. 1970, c.273 as amended. The Commission is composed of a minimum of three members, all of whom are government appointees. In 1975-76 and in 1976-77 there were six members. The enabling statute instructs the Commission to perform the following functions: to act as an appeal tribunal for the milk industry in Ontario and as a licence review board under *The Milk Act, The Oleomargarine Act,* R.S.O.1970, c.304 as amended, and *The Edible Oil Products Act,* R.S.O.1970, c.138 as amended; to administer "The Fund for Milk and Cream Producers"; to supervise and enforce The Ontario Milk Marketing Plan and the Ontario Cream Producers Marketing Plan; to develop and formulate policies to improve and stimulate the marketing of dairy products and to that end to conduct research programs, inquiries and such studies as the Minister directs; and, to act as liaison with organizations representing producers, processors, transporters, consumers and the Milk Industry Branch. The Commission has delegated the bulk of its marketing powers to the Ontario Milk Marketing Board and to the Ontario Cream Producers Marketing Board.

2. *The Ontario Milk Marketing Board*

The Ontario Milk Marketing Board was established under The Ontario Milk Marketing Plan, R.R.O.1970, Reg.597, Schedule s.4, made under *The Milk Act,* R.S.O.1970, c.273. It consists of not more than twelve members who must be milk producers. They are elected by the producers of the region they represent and are appointed by the Lieutenant Governor in Council. The objective of the marketing board is to improve the income of milk producers and the stability of the milk market, and it has the authority to "stimulate, increase and improve the marketing of milk and cheese by such means as it considers proper". Two main avenues are followed in pursuit of this objective. Market expansion is promoted through research and advertising programs. Market regulation is achieved by requiring that all milk and cheese be bought and sold by and through the marketing board and by setting the prices that are paid to producers and by processors for milk and cheese; by requiring that all producers be licensed; by requiring that milk be produced and sold on a quota basis; by setting up pools for the distribution of moneys received from the sale of milk; by buying and selling milk in order to affect the market price; by ensuring an adequate supply of milk to processors; and by controlling the transportation of milk.

3. *The Ontario Cream Producers' Marketing Board*

This Board was established by R.R.O. 1970, Reg. 585, S. 4, under *The Milk Act,* R.S.O. 1970, c. 273 and is composed of nine members. Each member is appointed by the Lieutenant Governor in Council. Only producers may sit on the Board. The function of the Board is to regulate and control the marketing of cream produced and processed in Ontario and its operation is similar to that of the Ontario Milk Marketing Board. Licensing powers, power to improve quotas, make orders and directions suspending, revoking or refusing to issue licences and quotas, and power to make regulations is delegated to the Board by the Milk Commission.

4. *The Farm Products Marketing Board*

The Board was continued as a body corporate by section 3(1) of *The Farm Products Marketing Act,* R.S.O.1970, c.162. The Board was composed of 5 members as of March 31, 1977 and all of the members are government appointees. The Board is responsible for administering the Act which provides in turn for the control and regulation in any or all respects of the marketing of farm products within Ontario. There are 21 marketing plans covering some 42 commodities regulated under the Act. The Board assists in the negotiation of prices, terms and conditions of sale and coordinates the activity of the Ministry and the commodity boards.

Plans under the Farm Products Marketing Act

4a *Apple Marketing Commission*

The Commission has price-setting authority and establishes the price for apples at the wholesale to retail level. It is composed of producer, packer, processor, retail and consumer representatives.

4b *Asparagus Marketing Board*

The Board operates under a negotiating-type plan by annually negotiating minimum prices with processors who contract their requirements with the Board. The Board accepts all asparagus delivered for processing through central receiving stations.

4c *Bean Producers' Marketing Board*

The Board establishes the price to be paid by dealers and processors of both white and yellow-eye beans. It purchases the beans and operates a producer's pool from which the beans are offered for tender at a specific price.

4d *Berry Growers' Marketing Board*

This Board operates under a negotiating-type plan but has been inactive in recent years.

4e *Burley Tobacco Growers' Marketing Board*

This negotiating-type plan has marketing quotas for producers. The crop acreage contract and minimum guaranteed price are established by annual negotiation with the tobacco processors and exporters. The crop is sold by auction.

4f *Chicken Producers' Marketing Board*

This 10-member Board establishes quotas and prices for broiler and roaster chickens marketed in Ontario.

4g *Egg Producer's Marketing Board*

This selected producer board of 13 members has both quota and price setting powers. It operates under the control of both the Farm Products Marketing Board and the National Egg Marketing Agency.

4h *Flue-Cured Tobacco Growers*

The Board negotiates the production contract and a minimum guaranteed price for the crop and each grade. The price is established by means of a Dutch Clock auction system operated in the centres of production.

4i *Fresh Fruit Marketing Board*

The Board establishes a price for fresh cherries, peaches, pears and plums and markets the crop through its agents.

4j *Fresh Grape Growers' Marketing Board*

The Board establishes price and markets the grape crop through its agents.

4k *Grape Growers' Marketing-for-Processing Board*

The Board annually negotiates the prices for various varieties of grapes with representatives of wineries and grape juice processors.

4l *Greenhouse Vegetable Producers' Marketing Board*

The Board regulates the marketing of greenhouse vegetables, tomatoes, cucumbers and lettuce by determining the prices, collecting fees and distributing returns to the growers.

4m *Pork Producers' Marketing Board*

The Board operates a teletype auction market and has introduced a grade pooling system and an export contract system based on production costs.

4n *Potato Growers' Marketing-for-Processing Board*

This Board of elected producers negotiates potato prices with Ontario processors.

4o *Processing Tomato Seedling Plant Growers Marketing Board*

This Board annually negotiates the price for seedlings with representatives of the major tomato processing firms.

4p *Seed Corn Growers' Marketing Board*

The Board represents 290 producers who harvested some $5,800,000 worth of seed corn in 1975.

4q *Soya-Bean Growers' Marketing Board*

This Board negotiates annually with dealers and processors over handling and drying charges paid by producers. It also sets the Ontario price by means of a set formula.

4r *Tender Fruit Growers' Marketing Board*

This Board establishes the price for cherries, peaches, pears and plums in negotiation with processors. The processors contract directly with the producers.

4s *Turkey Producers' Marketing Board*

The Board establishes producer marketing quotas under the allocation provided to the province by the Canadian Turkey Marketing Agency. The Board also establishes prices paid to producers by Ontario processors.

4t *Vegetable Growers' Marketing Board*

The Board negotiates the prices of tomatoes, sweet corn, beans, cucumbers, peppers, cauliflower and 6 other regulated processing crops and regulates contracts between producers and processors.

4u *Wheat Producers' Marketing Board*

The Board conducts the sale of winter wheat through its agents. Although domestic prices are set federally, the export prices are established by the Board. All receipts are pooled and the funds are distributed among producers on a *pro rata* basis.

5 *The Ontario Drainage Tribunal*

The Tribunal was established by section 97 of *The Drainage Act, 1975*, c.79 as amended by 1976, c. 8. The Tribunal is composed of a chairman and

such number of vice-chairmen and members as are appointed by the Lieutenant Governor in Council. At least one of the members must be a barrister. The function of the Tribunal is to hear and decide appeals and references on various matters under the Act. Generally the Tribunal exists to resolve all disputes which may arise from the initial application for the construction of drainage works through to the completion of the projects, including the acceptability of engineers reports and the assessments contained therein, appeals from any owner of land or any public utility or municipality or report on enumerated grounds, appeals from the apportionment of assessments for construction, repairs, etc., review of accounts and environmental appraisals and appeals from decisions of the court of revision.

6 *Ontario Municipal Board*

The Ontario Municipal Board is continued under *The Ontario Municipal Board Act,* R.S.O. 1970, c.323, s.4. It is composed of as many members (presently twenty-four) as the Lieutenant Governor in Council appoints. The Board's function is to ensure the sound growth and development of municipalities within the framework of the relevant statutes with particular regard to economic stability. It receives jurisdiction under several statutes besides *The Ontario Municipal Board Act,* the most important of these being *The Municipal Act, The Planning Act, The Schools Acts, The Highway Improvement Act* and *The Assessment Act.*

7 *Provincial Courts Rules Committee*

The Provincial Courts Rules Committee was established by S.O. 1968, c.103, s.26(1) and is continued under *The Provincial Courts Act,* R.S.O. 1970, c.369, s.26(1). It is composed of such members as the Lieutenant Governor in Council appoints. The Committee makes rules regulating any matters relating to practice and procedure in the Provincial Courts including the duties of officers of the courts, costs, proceedings, the payment into or out of court of money or property and service out of Ontario.

8 *Rules Committee*

The Rules Committee is continued under *The Judicature Act,* R.S.O. 1970, c.228, s.114(1) and is composed of the Chief Justice of Ontario, the Chief Justice of the High Court and five other judges of the Supreme Court to be appointed by the Chief Justice of Ontario; the Chief Judge of the County and District Courts; two county or district court judges appointed by the Attorney General or a law officer of the Crown appointed by him, the Senior Master, three barristers or solicitors appointed by the Benchers of the Law Society of Upper Canada and up to three other barristers or solicitors appointed by the Chief Justice of Ontario. The Committee amends,

repeals and makes rules for carrying the Act into effect and for regulating any matters relating to the practice and procedure of the Supreme Court, the duties of the officers of the court, the costs of proceedings and every matter deemed expedient for better attaining the ends of justice.

9 *District Child Welfare Budget Boards*

The establishment of District Child Welfare Budget Boards was first provided for by S.O. 1965, c.14, s.10 and continues to be provided for by *The Child Welfare Act,* R.S.O. 1970, c.64, s.10. These Boards are composed of five persons appointed jointly by the councils of every municipality in a district in which a District Welfare Administration Board has not been established. Their function is to approve the estimate of expenditures of the Children's Aid Society in their district in lieu of the approval by the municipal councils otherwise required under section 9 of the Act.

10 *Board of Censors*

The Board of Censors was first established by I George V., c.73, s.4(1) and is continued under *The Theatres Act,* R.S.O. 1970, c.459, s.3(1). It consists of a Director, an Assistant Director and such other persons as the Lieutenant Governor in Council may appoint. The Board views, evaluates, classifies and approves, prohibits or censors films and advertisements intended for exhibition in Ontario.

11 *Building Code Commission*

The Building Code Commission was established by *The Building Code Act,* S.O. 1974, c.74, s.12(1), and consists of as many members as the Lieutenant Governor in Council determines and appoints. It hold hearings where disputes arise between the chief official or an inspector and any other person with respect to the interpretation of the technical requirements of the building code or the sufficiency of compliance with such requirements. It may also rule on these matters upon a reference from a judge to whom an appeal from a decision of an inspector or chief official has been made.

12 *Building Materials Evaluation Commission*

The Building Materials evaluation Commission was established by *The Building Code Act,* 1974, c.74, s.17 and is composed of as many members as the Lieutenant Governor in Council shall determine and appoint. The Commission conducts research into materials, techniques and building design for construction, and, upon application, may authorize the use of any innovative material, technique or design in respect of any specified building or part thereof so that such authorized matters shall be deemed not to be a contra-

vention of the building code. The Commission may also make recommendations to the Minister of Consumer and Commercial Relations respecting changes in the Act or regulations.

13 *Liquor Control Board of Ontario*

The Liquor Control Board of Ontario is continued under section 2 of *The Liquor Control Act*, 1975, c.27 which replaces R.S.O. 1970, c.249, and amendments thereto. It is comprised of not more than five government appointments of whom one is designated chairman and one vice-chairman. The objectives of the Board are to provide a service to the public, resources for Ontario and a "market place" for the trade. To these ends it buys, imports and sells liquor in government stores, controls the marketing by manufacturers and the transportation of liquor, the varieties, brands and prices of liquor sold in government stores, and determines the municipalities in which such stores shall be established. Manufacturers of beer and Ontario wine are authorized by the Board to sell their products in their own stores, or in the case of beer, in stores operated by the Brewers' Warehousing Company Limited. The Board has the authority to carry out investigations of Ontario wine manufacturers to ensure that they pay levies on the amount of wine that should be produced from the amount of materials used. The profits of the Board are paid into the Consolidated Revenue Fund.

14 *Ontario Racing Commission*

The Racing Commission was established under *The Racing Commission Act*, R.S.O. 1950, c.67 and was continued by R.S.O. 1970, c.398 as amended by S.O.1973, c.116. The Commission is a body corporate composed of from 3 to 7 members. Presently composed of the maximum of 7, all members are government appointees. The functions of the Commission are to govern, direct, control and regulate horse racing in the province in any or all of its forms and to govern, control and regulate the operation of race tracks in the province. To this end, the Commission has issued the Rules of Thoroughbred and Standardbred Racing and has been given the power to enforce these rules. The Commission's primary method of regulation is through a licensing regime which encompasses all persons connected with horse racing.

15 *Ontario Securities Commission*

The establishment from time to time of a board to regulate the sale of securities in Ontario was first provided for by S.O. 1931, c.48, s.3. The Ontario Securities Commission was first established by S.O. 1938, c.69, s.3, and is continued under *The Securities Act*, R.S.O. 1970, c.426, s.2(1). It consists of a Chairman and not more than seven members, all of whom

are government appointees. The Commission's function is to administer *The Securities Act.* It holds hearings with respect to decisions by its Director and the Board of Governors of the Toronto Stock Exchange on applications for registration and other matters; it gathers, records and examines and may require the filing by registrants of information pertaining to securities trading; it supervises the Toronto Stock Exchange and works with broker and dealer associations and other provincial securities Commissioners; it investigates allegations of offences relating to securities; and it has the power to prevent a person from trading in securities.

16 *Pension Commission*

The Pension Commission of Ontario was established by S.O. 1962-63, c.103, s.2(1) and is continued under the *Pension Benefits Act,* R.S.O. 1970, c.342, s.2(1). It consists of not less than five and not more than nine government appointees. The functions of the Commission are to regulate pension plans in Ontario by registering all eligible plans and by administering and enforcing the Act, and to provide for the establishment and improvement of pension funds.

17 *Board of Parole*

The Board of Parole was first established by *The Ontario Parole Act,* S.O. 1917, c.63, s.3 and is continued under *The Ministry of Correctional Services Act,* R.S.O., 1970, c.110, s.23. It is composed of not more than seven government appointees. The Board holds hearings with respect to applications for parole and may authorize the arrest of a person on parole. It has jurisdiction over persons convicted of an offence against a statute of Ontario or municipal by-law or detained in an Ontario training school or the Ontario Reformatory.

18 *Teachers' Superannuation Commission*

The Teachers' Superannuation Commission was first established by S.O. 1927, c.58, s.13(1), received its present name under S.O. 1949, c.102, s.2(1) and is continued under *The Teachers' Superannuation Act,* R.S.O. 1970, c.455, s.2(1). The Commission is composed of six persons appointed by the Minister of Education and five contributors to the Teachers' Superannuation Fund elected by contributors to the fund who are members of the teachers' organization designated by the regulations. The Commission administers the Teachers' Superannuation Fund.

19 *Ontario Energy Board*

The Ontario Energy Board was established by S.O. 1960, c.75 and is continued under *The Ontario Energy Board Act,* R.S.O. 1970, c.312, s.2.

It consists of as many members, (but not fewer than five) as the Lieutenant Governor in Council may determine and appoint. The Board holds hearings with respect to the matters within its jurisdiction and may, with the approval of the Cabinet, make rules of practice and procedure to apply thereto. No gas transmitter, distributor or storage company may sell or charge for transmitting, distributing or storing gas except in accordance with an order of the Board. The Board may authorize a person to store gas on land or expropriate land for the purpose of construction, and its approval is required for any agreement for the storage of gas; for a gas transmitter or distributor to voluntarily discontinue operation or dispose of a substantial part of its transmitting or distributing systems used in serving the public or to amalgamate with any other company; for any person to acquire more than twenty percent of any transmission or distribution company; or for the construction of any production, distribution or transmission line or station and the expropriation of land for the purpose thereof. The Board may approve or fix reasonable rates and charges for the sale, distribution, transmission and storage of gas, and on reference by the Minister of Energy, consider and report on any proposed rates or charges or changes thereto by Ontario Hydro. It may also report on applications for designation of an area as a gas storage area, require storage companies to provide any unused capacity for the storage of gas, determine compensation to the owners of land which has been used for gas storage or which has been expropriated under the Board's authorization, require reports and provide for a uniform system of accounting to be used by gas companies, and may authorize an Energy Returns Officer to investigate operations relating to gas.

20 *Environmental Assessment Board*

The Environmental Assessment Board was established under *The Environmental Assessment Act,* 1975, c.69. It is composed of not fewer than five persons who shall not be among the public service employees of any ministry of Ontario. The Board holds hearings under *The Environmental Assessment Act, The Environmental Protection Act* and *The Ontario Water Resources Act.* The proponents of any proposed undertaking must submit an environmental assessment and the Minister of the Environment or any other person may require that the Board hold a hearing to review the assessment and decide whether to give, withhold or attach conditions to approval to proceed with the undertaking. *The Environmental Assessment Act* binds the Crown and allows the Lieutenant Governor in Council to make regulations defining any enterprise or activity as an undertaking and thereby bringing it within the jurisdiction of the Board. Under *The Environmental Protection Act* the Board may also be

required by the Director or the Minister to hold a hearing in respect of an application for a certificate of approval for the use, establishment or enlargement of a waste disposal site, or in respect of a municipal by-law affecting the location or operation of a proposed waste disposal site. The Board may hold hearings under the *Ontario Waste Resources Act* with regard to sewage works and areas of public water service or public sewage service. However under this Act and *The Environmental Protection Act* the Board makes reports containing information and advice only. Finally, the Board may also hold hearings under the authorization of an Order-in-Council regarding other matters for which there is no legislation.

21 *Health Unit Boards*

Under *The Public Health Act,* R.S.O. 1970, c.36, the Council or Councils of a county or counties or municipalities may by by-law declare it or themselves to be a health unit. The Minister with the approval of the Lieutenant Governor in Council may make regulations providing for the constitution of a board of health in any health unit, fixing the number of members and defining the powers of the board. The functions of health unit boards correspond to those of regional boards of Health *(infra).*

22 *Regional Boards of Health*

The establishment of regional boards of health was first provided for by 47 V., c.38, s.12 and continues to be provided for by *The Public Health Act,* R.S.O. 1970, c.377, s.13(1). In a city or in a town having a population of 4,000 or over, the Board consists of the mayor and four resident rate payers appointed annually by the Council but in a city having a population of 100,000 or over or in a township within the Municipality of Metropolitan Toronto, the Council may provide that the local board shall consist of the mayor and six resident rate payers at least two of whom are not members of the Council, or eight resident ratepayers at least three of whom are not members of the Council. Each board is established individually under the Act incorporating the regional municipality in which it has jurisdiction. The function of the regional boards is to supervise and ensure the carrying out of *The Public Health Act* and the regulations and any by-laws pertaining to public health.

23 *Review Boards For Psychiatric Facilities*

The appointment of review boards for one or more psychiatric facilities was first provided for under S.O. 1967, c.51, 5.27 and is now provided for under *The Mental Health Act,* R.S.O. 1970, c.269, s.27. A review board is composed of three or five government appointees at least

one of whom and not more than two of whom are psychiatrists, and at least one of whom and not more than two of whom are lawyers and at least one of whom is not a psychiatrist or a lawyer. The Boards hold hearings and conduct inquiries with respect to applications or on behalf of involuntary patients to consider whether the patient requires hospitalization.

24 *Ontario Labour Relations Board*

The Ontario Labour Relations Board was first established by S.O. 1948, c.51, s.2(1) and is continued under *The Labour Relations Act,* R.S.O. 1970, c.232, s.91(1). The Board is composed of a Chairman, nine vice-Chairmen, nine employer representatives and nine employee representatives, all of whom are government appointees and it has responsibility for the administration of the *Labour Relations Act.* The Board certifies trade unions as collective bargaining agents for employees, investigates and hears complaints of contraventions of the Act and grants remedial orders where the Act has been contravened, issues directions and declarations where unlawful strikes and lockouts have occurred, settles jurisdictional disputes arising out of the assignment of work, accredits employers' organizations in the construction industry, arbitrates disputes relating to the interpretation of construction industry collective agreements, terminates bargaining rights and grants leave to prosecute. The Board also has jurisdiction under *The Hospital Labour Disputes Arbitration Act* to issue remedial orders and declarations and to grant leave to prosecute; wide jurisdiction under *The Colleges Collective Bargaining Act* to supervise and issue remedial orders; narrower remedial jurisdiction under *The School Boards and Teachers Collective Negotiation Act;* and, jurisdiction to hear complaints under *The Employees' Health and Safety Act,* 1976.

25 *Ontario Human Rights Commission*

The Ontario Human Rights Commission was first established as the Ontario Anti-Discrimination Commission by *The Ontario Anti-Discrimination Commission Act,* S.O. 1958, c.70, s.2(1), received its present name under S.O. 1960-61, c.63, s.2, and is continued under *The Ontario Human Rights Code,* R.S.O., 1970, c.318, s.7(1). It is composed of three or more government appointees. The function of the Commission is to administer *The Ontario Human Rights Code* and eliminate discriminatory practices related to race, creed, colour, age, sex, marital status, nationality, ancestry or place of origin by forwarding the principle of freedom and equality of dignity and rights for every person and promoting an understanding and acceptance of, and compliance with the Act, by developing and conducting research and educational programs, by investigating complaints in contravention of the Act by enforcing the Act.

26 *Civil Service Commission*

The Civil Service Commission was established by S.O. 1947, c.89, s.2(1) and is continued under *The Public Service Act,* R.S.O. 1970, c.386, s.2(1). It consists of not fewer than three government appointees. The functions of the Commission are to regulate the classified service by evaluating and classifying positions, recommending salary ranges, recruiting and assigning persons to and for positions in the civil service, and to provide, assist in and coordinate staff development programs.

27 *Ontario Public Service Labour Relations Tribunal*

The Ontario Public Service Labour Relations Tribunal was established by *The Crown Employees Collective Bargaining Act,* S.O. 1972, c.67, s.36(1). The Tribunal is composed of one or more adjudications appointed by the Lieutenant Governor in Council. It grants and terminates representation rights to employee organizations, appoints arbitrators and investigators, makes investigations into employee complaints, holds hearings and determines what should be done with respect to such complaints, and holds hearings and makes declarations with respect to the legality of strikes and lock-outs.

28 *Mining Commissioner*

The office of Mining Commissioner was established by S.O. 1956, c.47, s.7 and continued under *The Mining Act,* R.S.O. 1970, c.274, s.135. The Commissioner is appointed by the Lieutenant Governor in Council. His function is to hold judicial and administrative hearings with respect to matters concerning *The Mining Act, The Beaches Protection Act,* and *The Mining Tax Act* and to exercise any other powers, duties and authorities assigned by the Minister.

29 *Board of Internal Economy*

The Board of Internal Economy was established by *The Legislative Assembly Amendment Act* (no. 2), S.O. 1974, c.116, s.3(82). It is composed of the speaker, who shall be chairman, three commissioners appointed by the Lieutenant Governor in Council from among the members of the Executive Council and three commissioners appointed, one from the caucus of the Government by that caucus, one from the caucus of the Official Opposition, by that caucus and one from the caucus of the party having the third largest membership in the Assembly, by that caucus. The Board reviews financial and other data pertaining to, approves the organization and staff establishment for, and approves and reviews administrative policies and procedures in relation to the operation of the Office of the

Assembly. It also advises upon and gives direction in relation to any matter the Board considers necessary for the efficient and effective operation of the Office of the Assembly.

30 *Commission on Election Contributions and Expenses*

The Commission on Election Contributions and Expenses was established by the *Election Finances Reform Act,* S.O. 1975, c.12, s.2. It is composed of two nominees of each political party that has four or more seats in the Assembly, and that nominated candidates in at least fifty percent of the electoral districts in the most recent general election; a bencher of the Law Society of Upper Canada appointed by the Lieutenant Governor in Council; the Chief Election Officer; and the Chairman appointed by the Lieutenant Governor in Council. The Commission regulates the election expenditures of political parties and candidates, largely through the financial returns required by the Act and reimburses candidates for election expenses in accordance with section 45 of the Act. It also recommends any amendments to the Act that it considers advisable.

31 *Niagara Escarpment Commission*

The Niagara Escarpment Commission was established as a corporation without share capital under *The Niagara Escarpment Planning and Development Act,* S.O. 1973, s.5(1), and is composed of seventeen government appointees of whom nine are chosen as representatives of the public at large and one is chosen from a list submitted by the county or regional council of each county and regional municipality whose jurisdiction includes any part of the Niagara Escarpment Planning Area. The Commission is engaged in preparation of the Niagara Escarpment Plan for the preservation of the Niagara Escarpment as a substantially continuous natural environment. Until the Plan is implemented the Commission will approve or disapprove proposals within the Development Control Area and comment on major proposals within the planning area on the basis of their individual merit.

32 *Ontario Police Commission*

The Ontario Police Commission was established by *The Police Amendment Act,* S.O. 1962-63, c.106, s.4 and is continued by *The Police Act,* R.S.O. 1970, c.351, s.40. The Commission is composed of three government appointees. Its functions are: to maintain records and research studies of criminal occurrences for the purpose of aiding the police forces in Ontario; to consult with, advise and provide information to other police authorities and police chiefs on all matters relating to police and policing;

to require municipalities to provide such lockups as the commission may determine; to assist in coordinating the work of the police forces in Ontario; to determine whether a police force is adequate and whether a municipality is discharging its responsibility for the maintenance of law and order; to inquire into any matter regarding the designation of a village or township as having a sufficient density of population and real property assessment to warrant the maintenance of a police force; to operate the Ontario Police College; to establish and require the installation of an inter-communication system for the police forces in Ontario and to govern its operation and procedures; and, to conduct investigations and hear and dispose of appeals by members of police forces in accordance with *The Police Act.*

33 *The Ontario Highway Transport Board*

The Ontario Highway Transport Board is continued under *The Ontario Highway Transport Board Act,* R.S.O. 1970, c.316, s.2 and is composed of three members or as many more as the Lieutenant Governor in Council may determine and appoint. The Board's objective is to regulate the use of public and public commercial vehicles having regard to the public interest, public convenience and safety. The Board has jurisdiction under *The Public Commercial Vehicles Act, The Public Vehicles Act* and *The Motor Vehicle Transport Act* (Canada) as well as under its enabling Act. No person may transport goods or passengers for remuneration or operate as a freight forwarder except under the authority of a licence issued in accordance with a certificate of public necessity and convenience which the Board may issue after a public hearing. Upon a reference by the Minister, the Board will hold hearings and report as to whether public necessity and convenience will be served by the transfer or renewal of a licence and in respect of any tariff of tolls submitted to the Minister for approval.

34 *The Ontario Telephone Service Commission*

The Commission is created under *The Telephone Act,* R.S.O. 1970, c.457 as amended. The Commission is composed of at least three members. The present complement is 7 members and all of the members are government appointees. Under the "Memorandum of Understanding" entered into by the Commission and the Ministry of Transportation and Communications, the objects of the Commission are: to assure adequate and economical telephone service by provincially regulated telephone systems; to assure that all telephone services are provided at just and reasonable rates; to assure that telephone systems are responsive to the public interest and to the communications objectives of the province; to

promote diversity and innovation in telephone services; to promote community participation in local matters; and, to cooperate with regulatory bodies of other jurisdictions for the regulation of telephone services. The "Memorandum" also provides that the Commission is to be guided in the exercise of its powers by the written policy statements of the Minister.

35 *Boards of Trustees for Improvement Districts*

The Boards of Trustees for Improvement Districts are constituted under *The Municipal Act,* R.S.O. 1970, c.284, s.502, and consist of three or five government appointed trustees. The Boards carry out the same functions in improvement districts as would be carried out by a council in a township, village or town municipality. The chairman of a board shall perform the same duties and has the same powers as a mayor or reeve.

36 *The Moosonee Development Area Board*

The Moosonee Development Area Board was established under *The Moosonee Development Area Board Act,* S.O. 1966, c.89, and is continued as a corporation without share capital under R.S.O., 1970, c.277, s.2(1). It consists of five members appointed and designated as chairman, vice-chairman and members by the Lieutenant Governor in Council. The Board has in the Development Area, for specific purposes, all the powers and duties of the council of a township as well as the power to acquire and hold land for development purposes, and to survey, clear, subdivide, sell, lease or otherwise dispose of such land.

LICENSING AND APPEAL BODIES

37 *Agricultural Tile Drainage Licence Review Board*

The Board was established by section 8 of *The Agricultural Tile Drainage Installation Act,* S.O. 1972, c.38. The Board is composed of not fewer than 3 government appointees, none of whom may be members of the public service in the employ of the Ministry of Agriculture and Food. The Board's function is to hear appeals from decisions of the Director appointed under the Act. Individuals carrying on the business of installing drainage works or operating a machine used in such installation, and any machine used in such installation must be licenced by the Director. The Director's decision to refuse to issue or renew a licence, or his suspension or revoking of a licence, may be appealed to the Review Board.

38 *Artificial Insemination of Live Stock Licence Review Board*

The Board was established by section 8d of *The Artificial Insemination*

of Cattle Act, R.S.O. 1970, c.30 as amended S.O. 1971, V.2, c.50, s.9 and S.O. 1973, c.119 (by which the Act was re-named *The Artificial Insemination of Livestock Act).* The Board is composed of not fewer than 3 government appointees, none of whom may be members of the public service in the employ of the Ministry of Agriculture and Food. The function of the Board is to hear and decide appeals from decisions of the Live Stock Commissioner concerning licences required by individuals or companies engaging or applying to engage in an inseminating or a semen-producing business, or by individuals acting or applying to act as an inseminator or semen processing supervisor.

39 *Licensing and Registration Review Board*

The Board is established by section 2 of *The Animals for Research Act,* R.S.O. 1970, c.22 as amended S.O. 1971, V.2, c.50, s.6. The Board is composed of not fewer than 3 government appointees, none of whom may be members of the public service in the employ of the Ministry of Agriculture and Food. The function of the Board is to hear appeals by way of trial de novo from decisions of the Director of the Veterinary Services Branch dealing with licences to operate a supply facility (i.e. premises used for the breeding and rearing of animals for research) or the registration of a research facility.

40 *The Dead Animal Disposal Licence Review Board*

41 *The Live Stock and Live Stock Products Licence Review Board*

42 *The Live Stock Community Sales Licence Review Board*

43 *The Meat Inspection Licence Review Board*

These boards were established by *The Dead Animal Disposal Act,* R.S.O. 1970, c.105, s.5e; *The Live Stock and Live Stock Products Act,* R.S.O. 1970, c.251, s.2e; *The Live Stock Community Sales Act,* R.S.O. 1970, c.253, s.3e; and *The Meat Inspection Act,* R.S.O. 1970, c.266, s.3e, as enacted by *The Civil Rights Statute Law Amendment Act,* S.O. 1971, Vol. 2, c.50, sections 26, 52, 53 and 56 respectively. The boards are to consist of not fewer than three government appointees of whom one may be appointed chairman and one vice-chairman.

When an applicant or licensee appeals a decision of the Director of the Veterinary Services Branch or the Live Stock Commissioner whereby the Director or Commissioner has refused to issue or renew a licence, or has suspended or revoked a licence under one of the above mentioned Acts, the appropriate board shall hear the appeal by way of a hearing *de novo* and may after the hearing confirm or alter the decision of the Director or Commissioner or may substitute its decision therefor.

Expenditures for all these boards except the Dead Animal Disposal Licence Review Board have been nil. The Dead Animal Disposal Licence Review Board had expenditures in 1976-77 of $670.93 for meetings between the Chairman and a legal advisor in preparation for a hearing which was cancelled due to the withdrawal of the appeal. [The Live Stock and Live Stock Products Licence Review Board has never met and none of the other three have met at least since 1975].

44 *Plant Diseases Licence Review Board*

The Board was established by section 4e of *The Plant Diseases Act,* R.S.O. 1970, c.350 as re-enacted S.O. 1971, v.1, c.50, s.67. The Board is composed of not fewer than 3 government appointees, none of whom are members of the public service in the employ of the Ministry of Agriculture and Food. The funtion of the Board is to hear appeals by way of a hearing *de novo* from decisions of the Director appointed under the Act whereby the Director has refused to issue or renew a licence or has suspended or revoked a licence to operate a nursery or to be a dealer in nursery stock. The Board has never met.

45 *Pregnant Mare Urine Licence Review Board*

The Board was established by S.O. 1968-69, c.97 and was continued by *The Pregnant Mare Urine Farms Act,* R.S.O. 1970, c.359 as amended S.O. 1971, v.2, c.50, s.68 and 1975, c.54. The Board is composed of not fewer than 3 government appointees, none of whom are members of the public service in the employ of the Ministry of Agriculture and Food. The function of the Board is to hear appeals by way of a hearing *de novo* from decisions of the Director of the Veterinary Services Branch whereby the Director has refused to issue or renew, or has suspended or revoked, a licence to operate a Pregnant Mare Urine farm or a licence to be a Pregnant Mare Urine contractor.

46 *Produce Licence Review Board*

The Board was established by section 3 of *The Farm Products Grades and Sales Amendment Act,* R.S.O. 1970, c.161 and 1972, c.37. The Board is composed of not fewer than 3 government appointees, none of whom are members of the public service in the employ of the Ministry of Agriculture and Food. The function of the Board is to hear appeals by way of a hearing *de novo* from decisions of the Director of the Farm Products Inspection Branch whereby the Director has refused to issue or renew, or has suspended or revoked, a licence to carry on business as a dealer in farm products, a licence to operate a controlled – atmosphere storage plant for farm pro-

ducts, or a licence to be a packer of controlled – atmosphere fruit. This Board has never met.

47 *Provincial Auctioneers Licence Review Board*

The Board was established by section 1e of *The Provincial Auctioneers Act,* R.S.O. 1970, c.368 as re-enacted by S.O. 1971, v.1, c.50, s.69. The Board is composed of not fewer than 3 government appointees, none of whom are members of the public service in the employ of the Ministry of Agriculture and Food. The function of the Board is to hear appeals by way of a hearing *de novo* from decisions of the Live Stock Commissioner whereby the Commissioner has refused or renew, or has suspended or revoked a licence to sell pure-bred live stock by public auction. This Board has never met.

48 *Riding Horse Establishment Licence Review Board*

The Board was established by section 2 of *The Riding Horse Establishments Act,* S.O. 1972, c. 59. The Board is composed of not fewer than 3 government appointees, none of whom are members of the public service in the employ of the Ministry of Agriculture and Food. The function of the Board is to hear appeals by way of a hearing *de novo* from decisions of the Director of the Veterinary Services Branch whereby the Director has refused to issue or renew, or has suspended or revoked, a licence to operate a riding horse establishment (premises where horses are kept and let out on hire for riding).

49 *Assessment Review Court*

The Assessment Review Court was established by *The Assessment Act,* R.S.O. 1970, c.32 and was continued by *The Assessment Review Court Act, 1972,* c.111 as amended S.O. 1973, c.107. The Court is composed of a chairman and such number of vice-chairmen and other members as the Lieutenant Governor in Council considers advisable and appoints. The Court hears appeals from municipal assessments and hears and determines complaints of errors or omissions such as property being wrongly inserted, or omitted from the roll, or having been assessed too high or too low.

50 *Private Vocational School Review Board*

The Board was established by section 3 of *The Private Vocational Schools Act*, S.O. 1974, c.48. The Board is composed of not fewer than 3 government appointees. The function of the Board is to hold hearings and make orders, in cases where the Superintendent of Private Vocational Schools has decided to refuse to register or to refuse to renew, or to suspend or revoke the registration of an operator of a private vocational school.

51 *Day Nursery Review Board*

The Board was established by section 5 of *The Day Nurseries Act,* R.S.O. 1970, c.104 as re-enacted by S.O. 1971, v.1, c.50, s.25(2). The Board is composed of not more than 5 government-appointed members. The function of the Board (which the Director appointed under the Act) is to hold hearings and make orders in cases where a licensee is dissatisfied with the terms and conditions which have been attached to a licence to operate a day nursery. The Board also holds hearings in cases where the Director proposes to refuse to issue or renew, or to revoke or suspend a licence.

52. *The Social Assistance Review Board*

The Social Assistance Review Board was established by section 6 of *The Ministry of Community and Social Services Amendment Act, 1974,* S.O. 1974, c.95. Previously the Board had simply been called a 'Board of Review' and had been established under section 11 of *The Family Benefits Act,* R.S.O. 1970, c.157. The Board is composed of up to 18 members (O. Reg. 17/75 as amended by O. Reg. 775/75), all of whom are government appointees.

Under *The Family Benefits Act,* R.S.O. 1970, c.157 as amended S.O. 1971, v.2, c.50, s.38; S.O. 1971, v.2, c.92; S.O. 1972, c.151; S.O. 1974, c.98, the Board may hold a hearing and review the decisions of the Director of the Family Benefits Branch of the Ministry of Community and Social Services regarding eligibility for, and the amount of, benefits.

Under *The General Welfare Assistance Act,* R.S.O. 1970, c.192 as amended S.O. 1971, v.2, c.50, s.44; S.O. 1974, c.96, the Board may hold a hearing and review the decisions of a municipal or regional welfare administrator regarding eligibility for and the amount of general welfare assistance.

Under *The Vocational Rehabilitation Services Act,* R.S.O. 1970, c.484 as amended S.O. 1971, v.2, c.50, s.86; S.O. 1974, c.97, the Board may hold a hearing and review the decisions of the Director of the Vocational Rehabilitation Services Branch of the Ministry regarding eligibility for, and the nature and amount of, vocational rehabilitation services.

53 *Commercial Registration Appeal Tribunal*

The Tribunal was established by section 7 of *The Ministry of Consumer and Commercial Relations Act,* R.S.O. 1970, c.113 as amended. The Tribunal is composed of 6 government appointees and such industry representatives as the Lieutenant Governor in Council appoints. The functions of the Tribunal are to advise the Minister on consumer matters and to hear appeals from decisions of Registrars under several Acts regarding the provincial registration of selected types of commercial contracts. The Tribunal hears

appeals from refusals, suspensions or revocations of registrations, from the terms and conditions imposed on registrations, from the issuing of cease and desist orders, and from the revocation of appointments. The Tribunal has jurisdiction under a variety of commercial statutes, including *The Bailiffs Act,* R.S.O. 1970, c.38; *The Business Practices Act 1974,* S.O. 1974, c.131; *The Collection Agencies Act,* R.S.O. 1970, c.71; *The Consumer Protection Act,* R.S.O. 1970, c.82; *The Consumer Reporting Act, 1973* S.O. 1973, c.97; *The Mortgage Brokers Act,* R.S.O. 1970, c.278; *The Motor Vehicles Dealers Act,* R.S.O. 1970, c.475; *The Paperback and Periodical Distributors Act, 1971*, S.O. 1971, c.82; *The Pyramidic Sales Act, 1972,* S.O. 1972, c. 57; *The Real Estate and Business Brokers Act,* R.S.O. 1970, c.401; *The Travel Industry Act, 1974,* S.O. 1974, c.115; and *The Upholstered and Stuffed Articles Act,* R.S.O. 1970, c.474.

54 *Liquor Licence Appeal Tribunal*

The Tribunal was established by section 14 of *The Liquor Licence Act, 1975,* S.O. 1975, c.40 and is composed of not more than 7 government appointees. The function of the Tribunal is to hear and determine appeals from decisions of the Liquor Licence Board to refuse to issue a licence or permit for the sale of liquor, or decisions to refuse to renew a licence or approve the transfer of a licence. Appeals are also heard from decisions to suspend or revoke a licence, or to attach terms and conditions to a licence or permit.

55 *Liquor Licence Board*

The Liquor Licence Board was continued under the *Liquor Licence Act,* S.O. 1975, c.40, s.2. The Board shall consist of not more than seven members of whom the Lieutenant Governor in Council shall appoint one as Chairman and one or more vice-chairmen. At present there are five members. Members of the Board are appointed by the Lieutenant Governor in Council for a term not exceeding five years and may be reappointed for further successive terms of not more than five years each. The function of the Board is to regulate the manufacture and sale of alcoholic beverages and their sale within Ontario. To this end, the Board issues licences and special occasion permits for the sale of liquor, registers agents and representatives of manufacturers, issues licences to manufacturers to permit them to sell liquor to the Liquor Control Board, carriers out investigations relevant to its jurisdiction and engages in numerous other functions incidental to the above.

56 *Conservation Review Board*

The Conservation Review Board was established by section 24 of *The Ontario Heritage Act, 1974,* c.122 as amended S.O. 1975, c.87. The Review

Board is composed of not fewer than 3 persons, all of whom are government appointees. The Board may hold a hearing and review the decision of a municipal council regarding the designation of property as being of historic or achitectural value or interest and applications to alter property so designated. The Board also reviews Ministerial decisions as to the issuing of licences to conduct archaeological exploration or field work, the designation of property as being of archaeological or historical significance and to the issuing of permits to excavate or alter designated property. After such hearings the Board will make a report to the municipal council or the Minister, as the case may be, and the final decision will be made by the council or Minister after consideration of said report.

57 *Environmental Appeal Board*

Initially established as the Pollution Control Appeal Board by section 77 of *The Environmental Protection Act, 1971,* c.86, the name was changed to the Environmental Appeal Board in 1972 by S.O. 1972, c.1, s.69(4). The Appeal Board is composed of not fewer than 5 government appointees, none of whom shall be members of the public service in the employ of The Ministry of the Environment. The function of the Appeal Board is to hold a hearing *de novo* when a person is aggrieved by a decision of the Director of the Air Management Branch, the Director of the Waste Management Branch, the chairman of the Ontario Water Resources Commission (when so designated by the Minister) or other Directors of branches as may be designated by the Minister to administer any part of the Act. The decision appealed from must deal with certificates of approval, provisional certificates of approval, licences or permits.

58 *Pesticides Appeal Board*

The Pesticides Appeal Board was established by section 12 of *The Pesticides Act, 1973,* c.25 as amended S.O. 1974, c.21. The Appeal Board is composed of not more than 7 members, all of whom are government appointees and none of whom are members of the public service in the employ of the Ministry of the Environment. The Appeal Board will hold a hearing when required to do so by a person affected by a decision or order of the Director in relation to licences to perform exterminations, to operate an extermination business or to sell or transfer any pesticide, and in relation to permits to perform a land or structural extermination. The Board will also hear appeals from decisions of the Director to make, amend or vary a control order or a stop order affecting the handling, storage, use, disposal, transportation or display of a pesticide.

59 *The Denture Therapists Appeal Board*

The Denture Therapists Appeal Board was established by section 12 of *The Denture Therapists Act, 1974,* c.34. The Appeal Board is composed of from 5 to 7 government appointees and no person who is employed in the Ontario public service or by any Crown agency, or who is or has been a member of the governing body of a health discipline, or who is or has been registered under *The Denture Therapists Act, 1974,* or any other Act governing a health practice shall be a member of the Appeal Board. The Appeal Board's function is to review or, in certain circumstances to investigate, the handling of complaints by the Complaints Committee of the Governing Board of Denture Therapists. The Appeal Board will also hold a hearing or review in respect of a decision of the Registration Committee to refuse to grant a licence, or to attach terms, conditions or limitations to a registration.

60 *Health Disciplines Board*

The Health Disciplines Board was established by *The Health Disciplines Act,* S.O. 1974, c.47, s.6 and is composed of not fewer than five and not more than seven members appointed by the Lieutenant Governor in Council upon the Minister's recommendation. The members must not be employed in the public service of Ontario or by any agency of the Crown, or have been a member of a governing body of a health discipline group or have been registered under any Act governing a health practice. The Board regulates licensing and practice in the health disciplines by holding hearings for the purpose of reviewing decisions of complaints committees and registration committees of the Colleges, investigating complaints where a complaint committee fails to act, and making remedial orders.

61 *The Health Facilities Appeal Board*

The Health Facilities Appeal Board was established by section 6 of *The Ambulance Amendment Act,* 1972, c.93. The Appeal Board is composed of 5 government appointees none of whom may be employees of the Government of Ontario or of any Crown agency. The Appeal Board will hold a hearing when a licensee is dissatisfied with the terms and conditions attached (by the Director of the Ambulance Services Branch) to his licence to operate an ambulance service. If the Director refuses to issue or renew a licence, then the person aggrieved is entitled to a hearing by the Appeal Board.

62 *The Health Services Appeal Board*

The Health Services Appeal Board was established by section 7 of *The Health Insurance Act,* 1972, c.91. The Appeal Board is composed of from 5

to 9 government appointees, a maximum of 3 being physicians and none of whom shall be employed in the service of Ontario or any Crown agency. The main function of the Appeal Board is to hear and determine appeals from the decisions made by the General Manager of the Ontario Health Insurance Plan under section 24 of the Act. Section 24 provides for appeals from refusals of applications to become or continue to be an insured person, refusals of applications for relief from or assistance in the payment of the premiums, refusals of claims for payment for insured services or reductions in the amounts so claimed. The Board also hears appeals from cases where the General Manager carries out a recommendation of the Medical Review Committee, or a practitioner review committee, that he require and recover reimbursement of any overpayment by the Plan.

63 *Hospital Appeal Board*

This board was established by *An Act to Amend the Public Hospitals Act,* S.O. 1972, c.90, s.23, amended S.O. 1973, c.164, s.1. Under s.47(1) of *The Public Hospitals Act,* R.S.O. 1970, c.378, as amended, the board is composed of five members appointed by the Lieutenant Governor in Council; two shall be physicians one shall be a member of the legal profession or judiciary, and two shall represent the public interest (one of whom is a member of a board of a public hospital). There does not appear to be any termination time to an appointment. The board hears appeals from physicians who have been refused appointments or re-appointments to medical staffs of public hospitals, or have had their appointments suspended or revoked.

64 *Laboratory Review Board*

The Laboratory Review Board was established by section 456 of *The Public Health Act,* R.S.O. 1970, c.77 as repealed and re-enacted by *The Public Health Amendment Act, 1972,* c.80, s.4. The Review Board is composed of 5 government appointees. The Review Board will hold hearings when a party is dissatisfied with the terms and conditions for his licence to establish, operate or maintain a laboratory prescribed by the Director of Laboratory Licences (an officer of the Ministry of Health appointed by the Minister). Hearings will also be held in cases where the Director proposes to revoke, or to refuse to issue or renew a laboratory licence.

65 *Licensing Board of Review*

The Board was established by section 7 of *The Childrens' Mental Health Centres Act,* R.S.O. 1970, c.68 as amended S.O. 1971, v.2, 50, s.20 and is composed of not more than 5 government appointees. The function of the Board is to hold hearings and make orders in cases where a licensee is

dissatisfied with the terms and conditions imposed on his license to establish, operate or maintain a children's mental health centre by the Director of the Children's Service Branch of the Mental Health Division of the Ministry of Health. The Board also hears appeals from the Director's proposals that a licence be refused or revoked.

66 *Medical Eligibility Committee*

The Committee was established by section 6 of *The Health Insurance Act, 1972,* c.91. The Committee is composed of no more than 15 government-appointed physicians and no member may be an employee of the province or of any Crown agency. The function of the Committee is to determine whether a service is medically necessary or not, in cases where an individual disputes a decision by the General Manager of O.H.I.P. that the insured person is not entitled to an insured service in a hospital or health facility because such service is not necessary. The Committee's recommendations shall be carried out by the General Manager.

67 *Nursing Homes Review Board*

The Nursing Homes Review Board was established by section 6 of *The Nursing Homes Act,* 1972, c.11. The Review Board is composed of from 3 to 7 government appointees. The function of the Review Board is to hold a hearing in cases where the Director (an officer of the Ministry of Health appointed by the Minister) proposes to refuse to issue or renew, or to revoke a licence to establish, operate or maintain a nursing home. At such hearings the Board may substitute its opinion for that of the Director.

68 *Ontario Labour-Management Arbitration Commission*

Initially established by S.O. 1968, c.86, the Ontario Labour-Management Arbitration Commission was continued by section 2 of *The Ontario Labour Management Arbitration Commission Act,* R.S.O. 1970, c.320. The Commission is composed of 7 government appointees, 3 of whom are representatives of employers and 3 of whom are representatives of employees. The Commission's main function is to issue its approval to persons whom it considers suitable to act as arbitrators. After a hearing, the Commission may refuse to issue its approval or may suspend or revoke its approval. The Commission is also required to maintain a register of approved arbitrators, to assist arbitrators by making the administrative arrangements for arbitrations, to sponsor training programs for arbitrators, to sponsor the publication and distribution of information related to arbitration processes and awards and to sponsor research into those processes and awards.

69 *Ontario Police Arbitration Commission*

The Ontario Police Arbitration Commission was established by section 39 of *The Police Act*, R.S.O. 1970, c.351 as re-enacted by S.O. 1972, c.103, s.4. The Commission is composed of 5 government appointees, 2 of whom are representatives of police governing bodies and 2 of whom are representatives of members of police forces. There is also a full-time arbitrator on staff appointed by the Solicitor General. The functions of the Commission are to maintain a register of available arbitrators, to assist arbitrators by making the administrative arrangements for arbitrations, to sponsor the publication and distribution of information in respect of arbitration processes and awards, to sponsor research into those processes and awards, to fix the fees of arbitrators and to make regulations governing the conduct of and procedures for arbitration proceedings.

70 *Game and Fish Hearing Board*

The Board was established by section 36a of *The Game and Fish Act*, R.S.O. 1970, c.186 as re-enacted by S.O. 1973, c.108, s.5. The Board is composed of not more than 5 government appointees, none of whom are to be members of the public service in the employ of the Ministry of Natural Resources. The Board hears appeals from refusals to issue licences and from Ministerial decisions to cancel licences including licences to trap animals and birds, to act as a guide, to buy or sell game animals, to propagate or sell a game bird or possess game birds for propagation or sale, to take bullfrogs for sale or barter, to fish commercially, to act as a bait-fish dealer, to possess pelts or to deal in furs, to tan pelts, to operate a fur farm, to set up a regulated hunting camp, to sell certain fish for stocking or human consumption and to keep wolves in captivity. The Board does not deal with appeals from matters concerning licences to hunt game or to fish or to use a dog to hunt caribou, deer or moose.

71 *Animal Care Review Board*

The Animal Care Review Board was established by section 14b of *The Ontario Society for the Prevention of Cruelty to Animals Amendment Act*, S.O. 1968-69, c.89. The Board is composed of not fewer than 3 members, all of whom are government appointees. The Board will hear appeals from the orders made by inspectors or agents of the Society to the owner or custodian of an animal believed to be in distress and from any decision to remove and take possession of an animal on behalf of the Society for the purpose of relieving that animal's distress.

COMPENSATION BODIES

102 *Wolf Damage Assessment Board*

The Board was established in 1974 by section 19b of *The Dog Licensing and Livestock and Poultry Protection Act,* R.S.O. 1970, c.133 as amended S.O. 1971, V. 2, c.50, s.33; S.O. 1972, c.10; S.O. 1974, c.94 and S.O. 1975, c.86. The Board is composed of at least 3 government appointed members, none of whom may be members of the public service in the employ of the Ministry of Agriculture and Food. The Board's sole function is to determine whether or not damage to livestock and poultry was done by wolves. Since the Live Stock Commissioner can reimburse a municipality for the money it has paid to the owner of livestock or poultry only in cases where the damage was caused by wolves, the Commissioner will refer such applications for reimbursement to the Board when he believes that the damage was not caused by wolves.

103 *Board of Negotiation*

The Board of Negotiation is established by section 27 of *The Expropriations Act,* R.S.O. 1970, c.154. The Board is composed of 2 or more government appointees. The Board's function is to attempt to negotiate a settlement of the compensation to be paid on an expropriation or injurious affection when asked to do so by the statutory authority or the owner. Negotiation may be dispensed with by agreement and in that case The Land Compensation Board will arbitrate the dispute.

104 *The Criminal Injuries Compensation Board*

The Board was established by *The Compensation for Victims of Crime Act,* S.O. 1971, c.51 (previously known as the Law Enforcement Compensation Board established by S.O. 1967, c.45). The Board is composed of from 5 to 7 government appointees. The function of the Board is to determine the proper amount of compensation to be paid in cases where any person is injured or killed by any act or omission in Ontario of any other person occurring in, or resulting from, the commission of a crime of violence (apart from motor vehicle offences), from lawfully arresting or attempting to arrest an offender, or from aiding a peace officer, or from preventing or attempting to prevent the commission of an offence.

105 *The Land Compensation Board*

The Land Compensation Board was established under *An Act Respecting the Procedures for Expropriating Lands and for Determining Compensation for the Expropriation or Injurious Affection of Lands,* S.O. 1962-63, c.43

and was continued under *The Expropriations Act,* R.S.O. 1970, c.154, as amended. The Board is composed of a chairman, two vice-chairman and seven other members, all of whom are government appointees. The Board is a judicial body which has been given sole jurisdiction (as of April 1, 1971) to determine compensation by arbitration in respect of every expropriation commenced under any statute, and in respect of all cases in which injurious affection to lands is caused by a statutory authority.

106 *Board of Trustees of The Travel Industry Trust Fund and Plan*

The Fund and Plan were established by the regulations made under *The Travel Industry Act, 1974,* c.115 (O. Reg. 367/75 as amended O. Reg. 491/76). The Fund is managed by a Board of Trustees and moneys are paid into the Fund by the travel agents and travel wholesalers who participate in the Plan. The money is used to compensate the clients of Plan participants who have paid for travel services which they have not received and who have been unable to collect refunds from the Plan participant.

107 *Board of Valuation*

Boards of Valuation are appointed by the Lieutenant Governor in Council as the need arises under *The Power Corporation Act,* R.S.O. 1970, c.354 as amended S.O. 1973, c.57. The Boards are composed of as many members as the Lieutenant Governor in Council determines. Where Ontario Hydro exercises its powers under section 24 or 33 of the Act and causes property damage a Board is appointed to determine the compensation to be paid for such damage. Boards of Valuation have no jurisdiction where the acts of Ontario Hydro constitute expropriation or injurious affection.

108 *Board of Negotiation under The Environmental Protection Act, 1971, c.86*

The Board was established by section 92(5) of *The Environmental Protection Act, 1971,* c.86. The Board is composed of 2 or more government appointees. The function of the Board is to assess the injury or damage caused to livestock or vegetation by a contaminant, in respect of which a claim has been made for compensation for economic loss. The Board is empowered to proceed in a summary and informal manner in order to negotiate a settlement of the claim.

109 *Medical Review Committee; Chiropody Review Committee; Chiropractic Review Committee; Dentistry Review Committee; Optometry Review Committee; Osteopathy Review Committee.*

The Medical Review Committee was established by *The Health Services Insurance Act,* R.S.O. 1970, c.200 and was continued by *The Health Insur-*

ance Act, 1972, c.91 as re-enacted 1974, c.60, s.1(1). The other Committees were established by section 5a of the 1972 Act as enacted by S.O. 1974, c.60, s.2 and as amended S.O. 1975, c.52, s.2(1) & (2). They are all committees of their professional governing bodies. The Medical Review Committee is composed of 6 government appointees selected by the College of Physicians and Surgeons and 2 lay appointees. The other committees are each composed of 2 lay members and 3 professional members all of whom are government appointees. The function of the Committees is to determine matters referred to them by the General Manager of O.H.I.P. regarding claims for payment by practitioners for insured services which he believes were not rendered, or were not medically or therapeutically necessary, or were not provided as per professional standards and practice, or the nature of which was misrepresented. Subject to rights of appeal, the General Manager will carry out the recommendations of the Committee. The Medical Review Committee is also to make reports and recommendations on matters referred to it by the Act or the regulations or by the Minister, the Health Services Appeal Board or the College of Physicians and Surgeons.

110 *Workmen's Compensation Board*

The Board was established by R.S.O. 1937, c.204 and was continued as a body corporate by *The Workmen's Compensation Amendment Act, 1973 (No. 2)* c.173. The Board is composed of a Chairman, a Vice-Chairman of Administration, a Vice-Chairman of Appeals and from 2 to 4 Commissioners of Appeals, all of whom are government appointees. Generally, the Board's function is to hear and determine all matters and questions arising from the claims of employees for compensation for personal injuries arising out of and in the course of their employment.

ARBITRAL BODIES

111 *Farm Machinery Board*

The Farm Machinery Board was established by Order-in-Council 1920/72 made pursuant to *The Ministry of Agriculture and Food Act,* R.S.O. 1970, c.109, s.51 (as amended). As of June, 1976 it was composed of six members of whom one was chairman and one was vice-chairman. The function of the Board is to negotiate settlements between farmers and the manufacturers and sellers of farm machinery, primarily where malfunctions occur in the operation of such machinery. The Board also encourages the establishment, operation and improvement of parts distribution and servicing systems for farm machinery.

112 *Negotiating Committee for Cream and Board of Arbitration*

The Negotiating Committee was established by R.R.O. 1970, Reg. 586 in order to adopt or settle by agreement the minimum price for cream, as well as the terms, forms and conditions of agreements, and any charges, costs or expenses relating to production or marketing of cream. The Board of Arbitration established under the same regulation arbitrates any matters not adopted or settled by the Negotiating Committee and any disputes arising out of any agreement adopted or settled by the Committee.

113 *Crop Insurance Arbitration Board*

The Crop Insurance Arbitration Board was established by R.R.O. 1970, Regulation 143 made under section 6 of *The Crop Insurance Act (Ontario)*, R.S.O. 1970, c.98. The Board is composed of one or more government appointees and has exclusive jurisdiction to hear and determine all disputes between the Crop Insurance Commission of Ontario and an insured person, arising out of the adjustment of a loss under a contract of insurance. The decisions of the Board are final.

114 *Produce Arbitration Board*

The Produce Arbitration Board was established by section 9L of *The Farm Products Grades and Sales Amendment Act, 1974*, S.O. 1974, c.6. The Board is composed of 3 government appointees one of whom must be a licensed dealer in farm products, one of whom must be a producer of farm products and none of whom may be members of the public service. Every contract between a producer of farm products and a licensee under the Act, respecting the marketing of any farm product shall be deemed to provide for the settlement of all disputes arising from the terms or conditions of the contract by the Arbitration Board and *The Arbitrations Act*, R.S.O. 1970, c.27 applies to such proceedings.

115 *College Relations Commission*

The College Relations Commission was established by section 56 of *The College Collective Bargaining Act*, S.O. 1975, c.74. The Commission is composed of 5 members, all of whom are government appointees. It is the duty of the Commission to maintain an awareness of negotiations between the Council of Regents for Colleges of Applied Arts and Technology and employee organizations, to compile statistics on the employees, to assist in the making or renewing of agreements, to select and train mediators, fact finders, arbitrators and selectors, to determine whether parties are negotiating in good faith, to determine the manner of conducting, and to supervise, secret ballot votes, and to advise the Lieutenant Governor in Council on matters relating to the effect of strikes, lock-outs or closings on students.

116 *Education Relations Commission*

The Education Relations Commission was established by section 60 of *The School Boards and Teachers Collective Negotiations Act,* S.O. 1975, c.72. The Commission is composed of 5 members all of whom are government appointees. It is the duty of the Commission to maintain an awareness of negotiations between teachers and a board of education (whether a public school, a secondary school, a separate school or a divisional board of education). It is also the Commission's duty to compile statistics on teachers, to provide assistance in the making or renewing of collective agreements, to select and train mediators, fact finders arbitrators or selectors, to determine whether the parties are negotiating in good faith, to determine the manner of conducting and to supervise secret ballot votes and to advise the Lieutenant Governor in Council on matters relating to the effect of strikes, lock-outs or closings of schools on students.

117 *Provincial Schools Authority*

The Provincial Schools Authority was established by section 2 of *The Provincial Schools Negotiations Act,* S.O. 1975, c.81. The Authority is composed of 5 government appointees and is responsible for all matters relating to the employment of teachers in schools operated by the Ministry of Correctional Services, the Ministry of Health or the Ministry of Education, (not including the Ontario Teacher Education College). The Authority has all the powers, the duties, and liabilities of a board under *The Education Act,* 1974, c.109.

118 *Board of Arbitration under the Hospital Labour Disputes Arbitration Act*

Boards of Arbitration are appointed on an ad hoc basis under section 5 of *The Hospital Labour Disputes Arbitration Act,* R.S.O. 1970, c.208 as amended S.O. 1972, c.152. Such a Board of Arbitration shall examine into and decide matters that are in dispute and any other matters that in the Board's view must be decided in order to conclude a collective agreement between a trade union representing a group of hospital employees and the employer of those employees. The Board shall not decide any matters that come within the jurisdiction of the Ontario Labour Relations Board.

119 *Boards of Arbitration*

Boards of Arbitration are appointed on an ad hoc basis under section 37 of the *Labour Relations Act,* R.S.O. 1970, c.232, as amended. The members of the Board are appointed by the parties to the dispute but if the parties are unable to make the necessary appointments, the Minister may make them.

The function of the Board is to provide final and binding settlement without stoppage of work of all differences between the parties arising from the interpretation, application, administration or alleged violation of the collective agreement.

120 *Employment Standards - Panel of Referees*

The Employment Standards Act, S.O. 1974, c.112, s.42(1) provides for the appointment by the Minister of Labour of a Panel of Referees. A referee may be selected from the Panel by the Director of Employment Standards to review an order of an Employment Standards Officer with respect to the granting of pregnancy leave by an employer or wages owed by an employer to an employee, or to hold a hearing where an Employment Standards Officer reports to the Director that an Employer has failed to comply with the Act or that an act, agreement, arrangement or scheme defeats or is intended to defeat the purpose of the Act or regulations.

121 *Ontario Human Rights Code – Boards of Inquiry*

The Ontario Human Rights Code, R.S.O. 1970, c.318, s.14a provides for Boards of Inquiry to be appointed by the Minister of Labour on an *ad hoc* basis where it appears that a complaint to the Commission will not be settled. The Boards hold hearings in respect of such complaints, decide whether any party has contravened the Act and if so, may order such party to do anything that constitutes compliance with the Act and rectify any injury caused to any person or make compensation therefor.

122 *Boards of Arbitration under the Crown Employees Collective Bargaining Act, 1972*

These *ad hoc* tripartite boards are established as the need arises to examine into and decide on matters that are in dispute within the scope of collective bargaining under the Act.

123 *Crown Employees Grievance Settlement Board*

The Grievance Settlement Board was established by section 18a of *The Crown Employees Collective Bargaining Act,* S.O. 1972, c.67 as enacted by S.O. 1974, c.135, s.9. The Board is composed of a chairman, one or more vice-chairmen and an equal number of members representing the employees and the employers. All members are appointed by the Lieutenant Governor in Council. Every collective agreement under the Act is deemed to provide for the settlement by the Grievance Settlement Board of any differences between the parties arising from the interpretation, application, administration or alleged contravention of the agreement including any question as to

whether a matter is arbitrable. The decision of the Board is final and binding upon the parties and the employees covered by the agreement.

124 *Ontario Provincial Police Arbitration Committee*

This Committee was continued by section 28 of *The Public Service Act,* R.S.O. 1970, c.386 as re-enacted by S.O. 1972, c.96, s.6. The Committee is appointed by the Lieutenant Governor in Council and is composed of a chairman and one member recommended by the staff side of the Ontario Provincial Police Negotiating Committee and one member recommended by the employer side of that Committee. The function of the Arbitration Committee is to decide those matters on which a majority of the Negotiating Committee are unable to agree.

125 *Ontario Provincial Police Negotiating Committee*

The Negotiating Committee was continued by section 27(5) of *The Public Service Act,* R.S.O. 1970, c.386 as re-enacted by 1972, c.96, s.6. The Committee is composed of a neutral chairman, 3 members representing the staff and 3 members representing the employers. The Committee negotiates the amendment or renewal of agreements between an Association representing members of the Ontario Provincial Police force and the Crown. The Committee may also establish grievance procedures to deal with the complaints of employees concerning working conditions or terms of employment.

126 *Ontario Public Service Labour Relations Tribunal*

The Ontario Public Service Labour Relations Tribunal was established by section 36 of *The Crown Employees Collective Bargaining Act,* S.O. 1972, c.67 as re-enacted by S.O. 1974, c.135, s.13. The Tribunal is composed of a chairman, one or more vice-chairmen and an equal number of members representing employees and the employer. All members are appointed by the Lieutenant Governor in Council. The Tribunal is empowered to make final and binding decisions as to whether a person is an employee under the Act and as to whether a matter comes within the scope of collective bargaining under the Act. The Tribunal also conducts representation votes and entertains applications for representation rights of employee organizations as bargaining agents, and for declarations terminating representation rights.

127 *Public Service Grievance Board*

The Public Service Grievance Board was continued under section 47 of R.R.O. 1970, Reg. 749, Part V of the Regulations under *The Public Service Act,* R.S.O. 1970, c.386 as amended S.O. 1972, c.1, s.107; S.O. 1972, c.96

and S.O. 1973, c.85. The Board is composed of not fewer than 3 members, all of whom are government appointees. The Board's function is to hear and dispose of grievances against the dismissal, working conditions or terms of employment of persons employed in the public service under the jurisdiction of a deputy minister. Grievances relating to the classification of an employee will be heard and disposed of by a Classification Rating Committee appointed by the Chairman of the Civil Service Commission.

128 *Public Service Classification Rating Committee*

The Public Service Classification Rating Committee was established by R.R.O. 1970, Reg. 749, s.63(4) under *The Public Service Act,* R.S.O. 1970, c.386, s.29(1)(r). The Committee is presently composed of three persons, two of whom are appointed annually and one of whom is appointed for each hearing by the Chairman of the Public Service Commission. The function of the Committee is to hold hearings with respect to grievances concerning classification if the grievor is not satisfied with the decision of the Deputy Minister.

129 *Bargaining Committees Under The Police Act*

Bargaining Committees are provided for under *The Police Act,* R.S.O. 1970, c.315, s.29 and are composed of members from a particular police force. The Committee meets with the municipal council or boards of commissioners of police for the purpose of bargaining and reaching an agreement providing for remuneration, pensions, sick leave, credit gratuities, grievance procedures or the working conditions of the members of the police force.

130 *Boards of Arbitration Under The Police Act*

Boards of Arbitration under *The Police Act* were first provided for by 1947, c.77, s.10, and continue to be provided for by *The Police Act,* R.S.O., 1970, c.351, s.31(1). The boards are to be composed of three members; two are appointed by the parties to the dispute the third is then appointed by the other two members.

OTHER PUBLIC INSTITUTIONS

236 *The Agricultural Rehabilitation and Development Directorate of Ontario*

The Directorate was continued as a body corporate responsible to the Minister of Agriculture and Food by section 2 of *The Agricultural Rehabilitation and Development Act (Ontario),* R.S.O. 1970, c.12. The Directorate is composed of 3 or more members appointed by the Lieutenant Governor in Council. The Directorate has power to acquire, lease, equip and develop

lands for projects for the more efficient use and economic development of those lands, for the development of income and employment opportunities in rural areas, or for the development and conservation for agricultural purposes of water supplies, or for soil improvement and conservation that will improve agricultural efficiency. It also has power to enter into agreements for the goods and services required for such projects, and to carry out projects in respect of which the Minister has entered into agreements.

237 *The Co-operative Loans Board of Ontario*

The Co-operative Loans Board was established as a corporation without share capital by *The Co-operative Loans Act,* S.O. 1956, c.11, and was continued by R.S.O. 1970, c.86, s.2. The Board is composed of 3 government appointees, all of whom are in the public service of Ontario. It is the function of the Board to administer *The Co-operative Loans Act, 1970,* whereby loans are made to agricultural co-operatives to assist in the provision of facilities for the handling of farm products.

238 *The Crop Insurance Commission of Ontario*

The Crop Insurance Commission was established as a corporation without share capital responsible to the Minister of Agriculture and Food by *The Crop Insurance Act (Ontario),* S.O. 1966, c.34 and continued by R.S.O. 1970, c.98, s.2. The Commission is composed of not fewer than 5 members, all of whom are government appointees. The principal function of the Commission is to establish and administer plans of crop insurance. The Commission also establishes and maintains the Ontario Crop Insurance Fund out of which are paid all moneys required for the payment of claims for insured losses, for the payment of premiums for reinsurance and for the repayment of advances made by the Treasurer to the Commission.

239 *Farm Products Payments Board (Milk)*

The Milk Commission of Ontario was designated by R.R.O. 1970, Reg. 348, s.3 as the Farm Payments Board (Milk) pursuant to the *Farm Products Payment Act,* R.S.O. 1970, c.163. The Board administers the Fund for Milk and Cream Producers.

240 *Farm Income Stabilization Commission of Ontario*

The Commission was established as a corporation without share capital responsible to the Minister of Agriculture and Food by section 2 of *The Farm Income Stabilization Act,* S.O. 1976, c.77. The Commission is composed of not fewer than 5 members, all of whom are government appointees. The Christian Farmers Federation, the National Farmers Union and the

Ontario Federation of Agriculture each nominate one representative for appointment to the Commission. The Commission's main function is to administer farm income stabilization plans. These plans may be established, amended and revoked by the Commission, subject to the approval of the Lieutenant Governor in Council. The Commission also established, and has maintained, the Ontario Farm Income Stabilization Fund. The Commission may also cancel the enrolment of any person in a stabilization plan.

241 *The Ontario Food Terminal Board*

The Board was established by 1946, c.63 and was continued as a body corporate by *The Ontario Food Terminal Act,* R.S.O. 1970, c.313 as amended S.O. 1971, v. 2, c.50, s.61 and S.O. 1972, c.1, s.8. The Board is composed of not more than 7 government appointees. The objects of the Board are to acquire, construct, equip and operate a wholesale fruit and produce market (The Ontario Food Terminal) and to acquire and operate such facilities for the transportation and handling of fruit and produce as may be necessary for the purposes of the Terminal and to do such other acts as may be necessary or expedient for the carrying out of its operations and undertakings. No person may operate or establish a wholesale market within Toronto, the Regional Municipality of York or the County of Peel without the Board's approval, unless the market was operating as of April 1, 1955 and has not been extended or enlarged. Appeals from refusals of approval lie with the Minister of Agriculture and Food.

242 *The Ontario Junior Farmer Establishment Loan Corporation*

The Corporation was established by *The Junior Farmer Establishment Act,* S.O. 1952, c.45 and was continued by R.S.O. 1970, c.229, s.2. The Corporation is composed of 3 members, all of whom are officers in the provincial public service appointed by the Lieutenant Governor in Council. The object of the Corporation is to make loans to junior farmers for the establishment, development and operation of their farms. Specifically loans may be made for the acquisition of agricultural land, the erection of farm houses and buildings, the payment of charges and encumbrances on the land, the consolidation of liabilities, the provision of drainage and the purchase of live stock.

243 *Ontario Stock Yards Board*

The Ontario Stock Yards Board is continued as a body corporate by section 2 of *The Stock Yards Act,* R.S.O. 1970, c.448 as amended 1971, v.2, c.50, s.80 and 1975, c.57. The Board is composed of not more than 9 members, all of whom are appointed by the Lieutenant Governor in Council. The objects of the Board are to acquire, construct, equip and operate live-

stock markets, and to acquire and operate such facilities for the transportation of live stock as may be necessary for the purposes of such markets. The Board has power to acquire by purchase, lease or in any other manner, or without the consent of the owner may enter, take possession of, expropriate and use the land, property assets and undertakings of any stock yard and any other land or property that it considers necessary for its undertakings. No person, other than the Board, shall construct, maintain or operate any new stock yard or any premises where live stock is assembled for sale except with the approval of the Board.

224 *Law Foundation of Ontario*

The Law Foundation of Ontario was established as a corporation without share capital by *The Law Society Act,* R.S.O. 1970, c.238, s.51(b) as enacted by S.O. 1973, c.49, s.3. It consists of a board of five trustees of whom two are appointed by the Attorney General and three are appointed by the Law Society of Ontario. The purpose of the Foundation is to establish and maintain a fund to be used to finance legal education and research, legal aid, and the establishment, maintenance and operation of law libraries. It has, *inter alia,* the power to invest funds in any security in which trustees are authorized to invest and the board of trustees may make by-laws to achieve the objects of the Foundation and to govern its procedure and the conduct and administration of the affairs of the Foundation.

245 *Boards of Governors of the Community Colleges*

These boards are established for each community college pursuant to R.R.O. 1970, Regulation 169, under the authority of *The Department of Colleges and Universities Act, 1971,* S.O. 1971, Vol. 2, c.66, ss.6(3) and (7)(b), (renamed *The Ministry of Colleges and Universities Act, 1971*). A board is composed of twelve governors, four of whom are appointed by the municipality or municipalities in the area in which the community college is established, and eight members appointed by the Ontario Council of Regents for Colleges of Applied Arts and Technology; three members will retire every year, terms are for four years, and governors may be reappointed. The director of the college is an *ex officio* member of the board. The board of governors makes recommendations to the Council of Regents concerning educational programs, appoints a director and other officers for the college, and prepares estimates of operating and capital costs. The board also appoints an advisory committee for each branch of a program of instruction at the college.

246 *Board of Governors or Governing Councils of Universities*

These boards or councils are created by Act which establish the

particular university, or the amendments thereto. For example, *The University of Toronto Act, 1971*, S.O. 1971, Vol. 2, c.56 (which superseded *The University of Toronto Act, 1947*, S.O. 1947, c.112, as amended) continued the Governors of the University of Toronto under the name "The Governing Council of the University of Toronto"; the Council is composed of the Chancellor and President as *ex officio* members; two members appointed by the President from among University or federated colleges officers, sixteen members appointed by the Lieutenant Governor in Council, twelve members elected by the teaching staff, eight members elected by the students, two members elected by the administrative staff, and eight members by the alumni. The standard term of office is three years and elections are staggered so that approximately one third of the Council is elected each year; the Presidential appointee and student members are chosen for one year. No person may serve the government, on the council for more than nine years consecutively. Management and control of the University is vested in the Governing Council. A second example is the *Laurentian University of Sudbury Act, 1960*, S.O. 1960, c.151 as amended S.O. 1961-62, c.154. This Act names certain individuals as founding governors, and five persons appointed by the Lieutenant Governor in Council to constitute a Board of Governors. These nineteen founding governors, their successors who are elected by the board, and the government appointees to the Board, have three year terms. A third example is the Board of Governors of York University, established by *The York University Act, 1965*, S.O. 1965, c.143 and consisting of the Chancellor, the President, and up to thirty other members, prescribed in the by-laws of the University and elected in accordance thereto, for a term not to exceed four years.

247 *The Council of the Ontario College of Art*

The College was established by 2 Geo. V, c.79 and was continued by *The Ontario College of Art Act, 1968-69*, c.80, s.2. The Council is a body corporate and is composed of a President, nine government appointees, six elected staff members and three elected student members. The government, conduct, management and control of the College and of its property, revenues, expenditures, business and affairs is vested in the Council, and the Council has all powers necessary or convenient to perform its duties and achieve the object of the College. The object of the College is to provide the opportunity, environment, education, and training of students and teachers in the fine and applied arts.

248 *Ontario Council of Regents for Colleges of Applied Arts And Technology*

The Council of Regents was established by section 6(2) of *The Ministry*

of Colleges and Universities Act, 1971, c.66. The Council is composed of such members as may be appointed by the Lieutenant Governor in Council. The Council's function is to assist the Minister in the planning, establishment and co-ordination of programs of instruction and services for colleges of applied arts and technology.

249 *Sunnybrook Hospital Board of Trustees*

The board was established by *The Sunnybrook Hospital Act,* 1966, c.150, as amended S.O. 1972, c.71. The board is composed of the Chairman of the Board of Governors, or a person appointed by him and the President of the University of Toronto, or a person appointed by him, the President of the medical staff, the Vice-President of the medical staff, and the Chairman of the Medical Advisory Committee of the Hospital, six trustees appointed by the Lieutenant Governor in Council, two trustees, members of the staff of the Faculty of Medicine of the University of Toronto, appointed by the Governors of the University of Toronto, and ten trustees appointed by the Governors of the University of Toronto. Trustees hold office for three years and are eligible for re-appointment; failure to attend meetings by a trustee constitutes vacating of the office by that trustee. The board is responsible for the management, operation and maintenance of the Hospital as a university teaching hospital, and, to that effect, may make by-laws and regulations, enter into agreements, and borrow or raise by way of loan such sums as may be necessary.

250 *Committees of Management and Boards of Management of Homes for the Aged.*

Boards and Committees of Management are appointed pursuant to the *Homes for the Aged and Rest Home Act,* R.S.O. 1970, c.206, as amended S.O. 1971-72, c.62, etc. Members of boards of management are appointed by the Lieutenant Governor in Council for a home established and maintained by a band, (or reserve) or by a territorial council, this board shall be composed of not more than seven members. The districts for which boards have been appointed, and the representation scheme, are set out in O. Reg. 92/75. Members of committees of management to operate homes established by Ontario municipalities, are composed of from three to five members of the municipal council, appointed by the municipality; committees for homes operated jointly by more than one municipality shall be composed of three or less council members from each of the municipalities. Members on boards of management serve two-year terms and may be reappointed. Either the council or the board of management operates the home.

251 *District Welfare Administration Boards*

Under *The District Welfare Administration Boards Act,* R.S.O. 1970, c.132 as amended S.O. 1972, c.1, s.20; 1972, c.25; 1973, c.144 such boards may be established for each district in the province. Where established, the board has all the powers, duties and responsibilities in respect of the provision and administration of welfare services that are given by any Act to municipal councils. The composition of each board varies from district to district: one or more members at large, are appointed by the Lieutenant Governor in Council and other members are appointed by the regional or municipal councils, as prescribed in the regulations (R.R.O. 1970, Reg. 225 as amended O. Reg. 84/73 and 683/73).

252 *The Soldiers' Aid Commission*

The Soldiers' Aid Commission was established by an order in council dated November 10, 1915 and was continued as a body corporate by *The Soldiers' Aid Commission Act,* R.S.O. 1960, c.377, as amended S.O. 1970, c.83. The Commission is composed of 5 members, all of whom are appointed by the Lieutenant Governor in Council. The function of the Commission is to issue grants when a need for assistance is demonstrated by persons who were engaged in active war-time service in the armed forces, their widows, and/or their children.

253 *The Ontario Share and Deposit Insurance Corporation*

The Corporation was established by section 96 of *The Credit Unions and Caisses Populaires Act, 1976,* c.62. The members of the Corporation are all government appointees, 3 of whom are nominated by a credit union league of over 50 members, one of whom is nominated by a league of under 50 members and 3 of whom represent the public and the credit unions who are not members of a league. The objects of the Corporation are to accumulate, manage, invest, disburse and distribute, when required, a separate fund for each league of credit unions and a further fund for all independent members. These funds are maintained to provide financial assistance to credit unions and to provide deposit insurance against the loss of shares or deposits by persons dealing with credit unions.

254 *The Toronto Stock Exchange*

The Stock Exchange was established by S.O. 1878, c.65 and was continued as a corporation without share capital by *The Toronto Stock Exchange Act,* R.S.O. 1970, c.465. The Board of Directors of the Stock Exchange is composed of the President of the Corporation, 2 public directors elected annually by the Board and 10 directors elected annually by the members of the Corporation. The Board of Directors has the power to

govern and regulate the Stock Exchange, the partnership and corporate arrangements of its members and those other persons authorized to trade on the Exchange, and the business conduct of members, other persons authorized to trade on the Exchange, their employees, agents and business associates.

255 *Art Gallery of Ontario Board of Trustees*

This board was continued by the *Art Gallery of Ontario Act,* R.S.O. 1970, c.29, as amended S.O. 1972, c.72. The board is composed of twenty-seven trustees, of whom five persons are appointed by the College of Founders of the Art Gallery of Ontario, ten persons by the membership of the Gallery, two persons by the council of the City of Toronto, and ten other persons by the Lieutenant Governor in Council. These trustees, other than the trustees appointed by the Lieutenant Governor in Council hold office for a term of one year, and may be reappointed any number of times. Those trustees appointed by the Lieutenant Governor in Council hold office for a period of three years and may be reappointed a second time, but cannot be reappointed a third time until one year has elapsed from the expiration of their second term; in addition, their terms are staggered so that three, or four, are elected each year. The Board has powers to make by-laws, rules and regulations for the use of the Gallery and membership in the Gallery, to appoint a Director, and to generally conduct the business and affairs of the Gallery. The Board shall submit an annual report.

256 *The McMichael Canadian Collection Board of Trustees*

This board was established by *The McMichael Canadian Collection Act, 1972,* c.134. The board is composed of not fewer than five, and not more than nine members, appointed by the Lieutenant Governor in Council, subject to the proviso that Robert and Signe McMichael are to be directors. The trustees are appointed for a term of not exceeding three years and may be re-appointed. The Board has power to manage and control the affairs of The McMichael Canadian Collection, a corporation without share capital, including the power to appoint a director, to appoint employees, to acquire property, to borrow money, and to erect buildings and structures. The Board shall report annually to the Minister.

257 *Ontario Educational Communications Authority*

The Authority was established by the *Ontario Educational Communications Authority Act,* S.O. 1970, c.23 and was continued as a corporation without share capital by R.S.O. 1970, c.311, s.2 as amended 1974, c.12. The Authority is composed of 13 government appointees, none of whom may be civil servants. The objects of the Authority are to initiate, acquire, produce,

distribute, exhibit or otherwise deal in programs and materials in the educational broadcasting and communications fields, to engage in research in those fields and to discharge such other duties as the Board of Directors of the Authority considers to be incidental or conducive to the attainment of those objects.

258 *Ontario Heritage Foundation*

The Ontario Heritage Foundation was established by 1967, c.65 and was continued as a body corporate by section 5 of *The Ontario Heritage Act, 1974,* c.122, as amended. The Foundation is composed of a board of directors of not fewer than 21 persons all of whom are government appointees. The objects of the Foundation are to advise the Minister of Culture and Recreation on matters relating to the conservation, protection, and preservation of Ontario's heritage, to receive, acquire and hold property in trust for the people of Ontario, to support, encourage and facilitate the conservation, protection and preservation of Ontario's heritage, to preserve, maintain, reconstruct, restore and manage property in the public interest and to conduct research and educational and communications programs.

259 *Ontario Lottery Corporation*

The Ontario Lottery Corporation was established as a corporation without share capital by section 3 of *The Ontario Lottery Corporation Act, 1974,* c.126. The corporation is composed of from 3 to 9 government appointees who also act as directors of the Corporation. The objects of the Corporation are to develop, undertake, organize, conduct and manage lottery schemes on behalf of the province and to enter into agreements, with the approval of the Lieutenant Governor in Council, to deal with lottery schemes of the federal government or other provinces. The Corporation may make regulations governing the sale of lottery tickets, the manner of selecting prize winners, the conditions and qualifications for entitlement to prizes, etc.

260 *Ontario Science Centre Board of Trustees (the Centennial Centre of Science and Technology)*

This board was continued by *The Centennial Centre of Science and Technology Act,* R.S.O. 1970, c.58. The board consists of between sixteen and twenty-six trustees, appointed by the Lieutenant Governor in Council for a term not exceeding three years; the trustees may be reappointed for any number of terms. The board has all the powers necessary to perform its duties, which are to control the affairs of the Centre, a corporation without share capital. The board is responsible to the Minister of Tourism and Information and makes an annual report to the Minister.

261 *Province of Ontario Council for the Arts*

The Council was established by 1962-63, c.6 and was continued as a corporation by *The Arts Council Act,* R.S.O. 1970, c.31. The Council is composed of a chairman, vice-chairman and 10 other members, all of whom are government appointees. The Council may assist, co-operate with, and enlist the aid of organizations engaged in the promotion and study of the arts, provide for grants, scholarships or loans to persons in Ontario for study or research in the arts and make awards to persons in Ontario for accomplishments in the arts.

262 *Royal Ontario Museum Board of Trustee*

This Board was continued by s.4(1) of *The Royal Ontario Museum Act* R.S.O. 1970, c.417 and is composed of twenty-one trustees. The chairman of The Governors of the University of Toronto, the President of the University of Toronto and the Director of the Museum are *ex officio* trustees of the Museum; of the remaining eighteen directors, fifteen are appointed by the Lieutenant Governor in Council and three are elected by the members of the Museum. The Trustees sit for a term of office of three years, the appointments being staggered so that five trustees are appointed, and one elected each year. Trustees are eligible for second terms, but cannot then be re-appointed or elected for a third term until at least one year has elapsed from the expiration of such term. The Board has all the powers necessary to achieve the objects of the Museum, which is a corporation without share capital. These powers include the power to make by-laws, rules and regulations for the administration of the affairs of the Museum, to appoint a Director of the Museum, to establish, maintain and operate a museum and a planetarium and related facilities, and to acquire and own property.

263 *Ontario Energy Corporation*

The Ontario Energy Corporation was created in 1974 by the *Ontario Energy Corporation Act,* S.O. 1974, c.101, s.3. The objectives of the corporation are to enhance the availability of energy in Ontario, to stimulate exploration for energy, to stimulate the expansion of the capability to produce energy, to encourage investment in energy projects, and to encourage the development of processes and equipment that will avoid the wasteful use of energy and that will minimize harm to the environment. The corporation is run by a board of directors consisting of five members. The first directors were appointed by the Lieutenant Governor in Council and hold office until their successors are elected by the shareholders of the corporation.

264 *Ontario Hydro*

The Hydro-Electric Power Commission was established in 1906 by 6

Edw. VII c.15 and was continued as a body corporate without share capital under the new name of Ontario Hydro by section 2(1) of *The Power Corporation Act* R.S.O. 1970, c.354 as amended and re-named by 1973, c.57. Ontario Hydro is composed of those persons who comprise its Board of Directors. The Board consists of a chairman, vice-chairman, president and not more than 10 other directors. The directors are government appointees, except for the President who is appointed by the Board. Ontario Hydro administers an electric power enterprise and to that end has broad powers to purchase, produce and deliver electricity in Ontario. In most cases the electricity is delivered to municipal utilities for re-sale (although some direct sales are made) and, in conjunction with this, Ontario Hydro has power to regulate the electrical services provided by municipalities, including the rates charged by the municipalities.

265 *Clarke Institute of Psychiatry Board of Trustees*

The board was continued by the *Ontario Mental Health Foundation Act,* R.S.O. 1970, c.322. The Institute consists of between seven and twelve persons, appointed by the Lieutenant Governor in Council, of whom two are appointed on the recommendation of the Minister of Health, at least two are members of the Ontario Mental Health Foundation, and the remainder appointed from among a list of persons appointed by the Foundation. Trustees have a term of office of three years and are eligible for reappointment for a second term of three years, but are not eligible for a second reappointment until a period of twelve months has elapsed from the date of retirement. The Institute has powers to make rules, by-laws and regulations expedient for the administration of its affairs, i.e. to maintain, manage and operate a hospital with facilities for psychiatric research, education, diagnosis and treatments.

266 *Community Psychiatric Hospitals Boards of Governors*

These boards were continued by *The Community Psychiatric Hospitals Act,* R.S.O. 1970, c.669. Where the Lieutenant Governor in Council establishes a hospital under this Act, he appoints a board of governors composed of not fewer than eight members and vacancies are filled as they occur. The board has power to make by-laws, rules and regulations as it considers necessary for the administration of its affairs, namely to operate and maintain the hospital. The board may appoint a director and other necessary personnel.

267 *Public Hospitals Boards of Directors*

These boards are created in accordance with the authority whereby the hospital is established. However, by virtue of s.39(1)(f) of *The Public Hospi-*

tals Act, R.S.O. 1970, c.378, the Lieutenant Governor in Council may make regulations providing for the appointment of certain persons by virtue of their office, in addition to those directors appointed or chosen in accordance with the authority statute for the hospital. By an amendment, S.O. 1972, c.90, s.8(4), a new subsection 9(ii) empowers the Lieutenant Governor in Council to appoint one or more provincial health representatives to the board of a public hospital, such appointees having the same rights and responsibilities as other directors.

268 *Ontario Mental Health Foundation*

The Foundation was established by S.O. 1960-61, c.67 and was continued as a corporation by *The Ontario Mental Health Foundation Act,* R.S.O. 1970, c.322. The foundation is composed of 7 or more members, all of whom are government appointees. The object of the Foundation is to establish and conduct a program of research, diagnosis and treatment in mental health, including, the establishment, maintenance and operation of research, diagnostic and treatment centres and hostels, the transportation of patients, the investigation of psychiatric disorders, the provision of education and training for students and the public, and the provision of research fellowships.

269 *Local Housing Authorities*

Under 8 section 6(2) of *The Housing Development Act,* R.S.O. 1970, c.213 as amended by S.O. 1976, c.44, s.2, The Lieutenant Governor in Council may constitute corporations with such powers and duties as are deemed expedient to carry out any of the terms of any agreement made with the Crown in right of Canada for the acquisition and development of land for housing purposes the construction of housing projects, or the acquisition, improvement and conversion for housing purposes of existing buildings or to carry out any building development or any housing project including the power to plan, construct, and manage any building development or any housing project and including power to acquire and dispose of land in its own name.

270 *North Pickering Development Corporation*

The Corporation was established by section 3 of *The North Pickering Development Corporation Act, 1974,* c.124. The Board of Directors of the Corporation is composed of from 5 to 9 government appointees. The Corporation shall prepare the Plan for Development of, and develop, the North Pickering Planning Area. The Plan may contain policies for the economic, social, environmental, agricultural and physical development of the area, policies relating to the financing and programming of projects and

capital works, and such other policies as the Minister considers advisable. The Corporation has the power to, *inter alia*, carry out investigations and surveys, to acquire, hold, manage, lease, demolish, alter, improve and dispose of land and other property, to provide, manage and maintain services, amenities, installations, buildings and other structures, and to carry on any business with the Minister's approval.

271 *Ontario Housing Corporation*

The Corporation was established by S.O. 1964, c.76 and was continued as a corporation without share capital by *The Ontario Housing Corporation Act,* R.S.O. 1970, c.317. The Corporation is composed of from 7 to 11 government appointees who also form the Board of Directors. The Corporation may guarantee loans used in the construction of a building development, advance moneys or guarantee loans to any development corporation to undertake a building development, advance moneys or guarantee loans used to acquire and rehabilitate housing units, advance moneys or guarantee loans used by a municipality to demolish dwellings, and make grants in aid of any housing development or in aid of studies into housing. The Corporation is to assist the house building industry by stimulating and encouraging research, education and constructive competition in the industry. Basically, the Corporation takes over the powers, rights and obligations of the Minister of Housing and of the Lieutenant Governor in Council under *The Housing Development Act,* R.S.O. 1970, c.213. The mandate of the corporation is to produce and manage affordable housing for families and senior citizens in the low to moderate income groups.

272 *Ontario Mortgage Corporation*

The Corporation is a limited company under *The Business Corporations Act,* R.S.O. 1970, c.53, as amended, having shareholders, directors and operating officers. The majority shareholder is the Minister of Housing who thereby has control over the election of the 7 person Board of Directors. The object of the Corporation is to lend moneys on the mortgage of real estate or otherwise, similar in all respects to private sector banks, insurance companies and trust companies.

273 *Algonquin Forestry Authority*

The Authority was established as a corporation without share capital by section 3 of The *Algonquin Forestry Authority Act, 1974,* c.99. The Authority is composed of from 5 to 12 government appointees, who also act as the Board of Directors. The objects of the Authority are, subject to *The Crown Timber Act,* R.S.O. 1970, c.102, to harvest Crown timber and produce logs therefrom, and to sort, sell, supply and deliver the logs and to perform,

undertake and carry out such forestry, land management and other programs and projects as the Minister of Natural Resources may authorize, and to advise the Minister on forestry and land management programs and projects of general advantage to Ontario. The Authority shall carry out its objects in Algonquin Provincial Park and on lands adjacent thereto.

274 *Conservation Authorities*

Conservation Authorities are bodies corporate established by the Lieutenant Governor in Council on the request of 2 or more municipalities within the same watershed as outlined in*The Conservation Authorities Act,* R.S.O. 1970, c.78 as amended 1971, v.2, c.64; 1972, c.1, s.84; 1973, c.98. The members of an Authority are appointed by the municipal councils involved, in numbers varying with the population of the municipality. However if there are fewer than 4 members, the Lieutenant Governor in Council may increase the total number of members that may be appointed by a municipality. The objects of an authority are to establish and undertake in the area over which it has jurisdiction, a program designed to further the conservation, restoration, development and management of natural resources (other than gas, oil, coal and minerals). To accomplish its objects, an authority has wide-ranging powers which include the power to acquire and expropriate land, to erect works and structures on the land and to alter the course of any river or waterway. An authority also has broad regulatory powers over the use of its lands by the public.

275 *Freshwater Fish Marketing Corporation*

The Corporation was established under a federal act and was designated as the body to control the selling and buying of, freshwater fish in Ontario by S.O. 1968-69, c.40 andcontinued to be so designated in *The Freshwater Fish Marketing Act (Ontario),* R.S.O. 1970, c. 184.

276 *Lake of the Woods Control Board*

The Control Board was established by agreement between the federal and provincial governments in *The Lake of the Woods Control Board Act, 1922,* c.21. The Board is composed of 4 qualified engineers, 2 of whom are provincial appointees and 2 of whom are federal appointees. The Board has power to regulate and control the outflow of lake waters and the level and flow of river waters in the designated region.

277 *Niagara Parks Commission*

The Niagara Parks Commission was first constituted as a corporation under *The Queen Victoria Niagara Falls Park Act,* S.O. 1887, c.13, s.1, took

its present name under *The Niagara Park Act* S.O. 1927, c.24, s.2(1) and is continued under *The Niagara Parks Act,* R.S.O. 1970, c.298, s.3. It is composed of not fewer than nine and not more than eleven government appointees of whom one shall be a member of each of the councils of the County. The Commission is instructed to manage, control, and develop parks in the Niagara area which fall under its jurisdiction by virtue of section 1 of the Act.

278 *St. Clair Parkway Commission*

The St. Clair Parkway Commission was constituted as a corporation without share capital by *The St. Clair Parkway Commission Act,* S.O. 1966, s.2(1). It is composed of not more than eleven members of whom two are appointed annually by the council and the County of Lambton, two by the council of the City of Sarnia, one by the council of the County of Kent, one by the council of the City of Chatham and not more than five appointed by the Lieutenant Governor in Council. The Commission develops, controls, manages, operates and maintains the parks under its control.

279 *St. Lawrence Parks Commission*

The St. Lawrence Parks Commission was established by *The Ontario - St. Lawrence Development Commission Act,* S.O., 1955, c.59, s.2(1) and is continued under *The St. Lawrence Parks Commission Act,* R.S.O. 1970, c.447, s.2(1). It is composed of not fewer than three and not more than fifteen government appointees; in 1976 there were ten members. The Commission develops, controls, manages, operates and maintains the parks under its control.

280 *Niagara Falls Bridge Commission*

The Commission was established jointly by resolutions of the U.S. Congress and by *The Rainbow Bridge Act, 1941,* c.48. It constructed, and now operates and maintains, the Rainbow, Whirlpool Rapids and Lewiston-Queenston Bridges.

281 *Eastern Ontario Development Corporation*

The Eastern Ontario Development Corporation was established by *The Development Corporations Act, 1973,* c.84. The Corporation is composed of from 5 to 14 government appointed directors and its objects are the same as those of The Ontario Development Corporation.

282 *Northern Ontario Development Corporation*

The Northern Ontario Development Corporation was incorporated by

S.O. 1970, c.77 and was continued by *The Development Corporations Act, 1973,* c.84. The Corporation is composed of from 5 to 14 government-appointed directors and its objects are the same as those of The Ontario Development Corporation.

283 *Ontario Development Corporation*

The Corporation was incorporated by S.O. 1966, c.100 and was continued by *The Development Corporations Act,* 1973, c.84. The Corporation is composed of not more than 16 directors appointed by the Lieutenant Governor in Council, of whom 4 shall be from the Eastern Ontario Development Corporation and 4 shall be from the Northern Ontario Development Corporation. The objects of all three development corporations are to encourage and assist in the development and diversification of industry in Ontario, including the provision of financial assistance, sites, equipment, premises, facilities and services and the provision of technical, business and financial information, advice, training and guidance.

284 *Ontario Place Board of Directors*

This board was established by *The Ontario Place Corporation Act, 1972,* c.33, amended S.O. 1973, c.40. The board is composed of not fewer than seven and not more than thirteen members, of whom one shall be the Deputy Minister of Industry and Tourism, *ex officio,* and the remainder, one of whom being the Director of the Canadian National Exhibition Association, are appointed by the Lieutenant Governor in Council. There appears to be no fixed expiration date to their appointment to the board. The board has power to make regulations relating to the operation of Ontario Place, and the affairs of the Ontario Place Corporation, which is a corporation without share capital, are under the management and control of the board.

285 *Ontario Northland Transportation Commission*

The Commission was continued under *The Ontario Northland Transportation Commission Act,* R.S.O. 1970, c.326 as amended. The Commission may be composed of one or more persons. In 1976 and 1977, there were 6 commissioners appointed by the Lieutenant Governor in Council. The function of the Commission is to provide a transportation and communications system in Northern Ontario. In conjunction with this, the Commission may construct and operate railways and telephone and telegraph lines and may operate bus lines, airlines, hotels, restaurants, boats and trucks for the purpose of carrying on the business of a public carrier of passengers and freight.

286 *Ontario Transportation Development Corporation*

The Ontario Transportation Development Corporation was established as a corporation with share capital by *The Ontario Transportation Development Corporation Act, 1973,* c.66, s.3(1). It has a Board of Directors consisting of nine government appointees whose successors are to be elected by the shareholders of the Corporation. The Minister of Transportation and Communications is a majority shareholder at all times. The Corporation's functions are to develop, manufacture and sell new inventions, machinery and systems for public transit, to encourage and assist development and research related to public transit among other government agencies and business, and to operate or assist in operating services and facilities for public transit systems.

287 *Toronto Area Transit Operating Authority*

The Toronto Area Transit Operating Authority was established under *The Toronto Area Transit Operating Authority Act,* S.O. 1974, c.69, s.2(1) as a corporation without share capital. It is composed of four members one of whom, the chairman, is appointed by the Lieutenant Governor in Council, and the others are the chairmen of the regional councils of the regional municipalities of Peel and York and of the Metropolitan Council of the Municipality of Metropolitan Toronto. The functions of the Authority are to design, construct and operate an inter-regional transit system, to operate the commuter services known as Government of Ontario Transit and to study or investigate the design, operation, fare structure and service schedule of any regional transit system.

288 *The Ontario Education Capital Aid Corporation*

The Corporation was established by S.O. 1966, c.101 and was continued by *The Ontario Education Capital Aid Corporation Act,* R.S.O. 1970, c.310. The Corporation is composed of from 5 to 7 government appointees. The object of the Corporation is to purchase from municipalities debentures issued for school board undertakings, public library purposes and grants to an association under section 352(31) of *The Municipal Act.*

289 *Ontario Land Corporation*

The Corporation was established by *The Ontario Land Corporation Act, 1974,* c.134. The Board of Directors of the Corporation is composed of from 6 to 12 government appointees. The objects of the Corporation are to assist in the promotion of community and industrial development of land in Ontario by the acquisition of land and the disposal of it to persons in the private and public sectors for residential, community, industrial, governmental and

commercial development. In addition to its other powers, the corporation may enter upon, take and expropriate any land that it considers necessary for its use or purposes. The Corporation also finances the Municipal Industrial Parks Program of the Ontario Development Corporation.

290 *Ontario Municipal Employees Retirement Board*

The Ontario Municipal Employees Retirement Board was established by *The Ontario Municipal Employees Retirement System Act,* S.O., 1961-1962, c.97 and is continued under R.S.O. 1970, c.324, s.3(1). The Board is composed of three officials of the Province of Ontario, two persons who are members of the council of a participating municipality or of a participating local board of a municipality and six persons who are employees of an employer who has elected to participate in the system, at least two of whom are officers of such an employer. The Board manages and administers the Ontario Municipal Employees Retirement System, and the Ontario Municipal Employees Retirement Fund and may make rules and regulations for that purpose.

291 *Ontario Municipal Improvement Corporation*

The Corporation was established by S.O. 1950, c.50, and was continued as a body corporate without share capital by *The Ontario Municipal Improvement Corporation Act,* R.S.O. 1970, c.325. The Corporation is composed of from 3 to 5 government appointees. The objects of the Corporation are to purchase from Ontario municipalities debentures issued for a variety of municipal works and undertakings.

292 *Ontario Universities Capital Aid Corporation*

The Corporation was established by 1964, c.85 and was continued as a corporation without share capital by *The Ontario Universities Capital Aid Corporation Act,* R.S.O. 1970, c.331 as amended. The Corporation is composed of from 3 to 7 government appointees. The objects of the Corporation are to purchase bonds or debentures from colleges, universities, The Art Gallery of Ontario, The Royal Ontario Museum and The Ontario College of Art which have been issued for capital construction projects approved by the Minister of Colleges and Universities or the Lieutenant Governor in Council. It may also purchase municipal debentures issued for public library purposes and approved by the Minister of Culture and Recreation.

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